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STUDIES in ART EDUCATION

A Journal of Issues and Research in Art Education

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STUDIES IN ART EDUCATION

A Journal of Issues and Research in Art Education

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Elephants, Blind Men, and the World in Which We Live: an Editorial

The tale of the blind men and the elephant is known to most of us: how each approached the elephant, reached out to take hold of a different part of the animal—the trunk, the ear, the leg, the tail, etc.; how each then "constructed" *his concept* of the elephant. Each of us, in our own way, "reaches out" to grasp the world in which we live; each man seeks to "make sense" of things about him. Just as was the case with the blind men, however, we may grasp different parts of "reality" or we may attribute different meanings to the very same things "grasped" by our fellow men.

Reaching to grasp an elephant is a relatively "simple" matter (although it is possible to view and interpret an elephant from an infinity of points of view); reaching "to grasp" the world in which we live obviously presents a limitless, kaleidoscopic flux of impressions to which we may attribute meaning.

There have always been points of agreement and disagreement about the meanings attributed to our world. This will always be the case. Men have been able to reach their "agreements" through systems for codifying or giving meaning to their world—language, mathematics, and other commonly accepted symbols are mechanisms for such systems. Through observation and empirical testing within a common framework, we have been able "to grasp the same part of the elephant" and agree to its meaning and significance. Thus it is possible to use the same yardstick and measure the length, width, and height of a table; it is possible to look at our watches and agree as to the time of day; it is possible to establish certain criteria for judging people's actions and then proceed to make judgments, utilizing these criteria, etc. In short, we have succeeded in organizing large areas of human experience so as to enable understanding, predicting, and in some cases controlling aspects of our lives.

In large measure this publication is devoted to furthering our efforts toward reaching agreement as to the means by which effective teaching of art might be accomplished. As such, causal rela-

tionships, purposes, and predictive possibilities *are of real concern.* There is, however, another sense in which the very subject being taught operates against our attempts to reach "agreement" about precise methodologies for the teaching of art.

For one thing, "agreement" with nature or some other commonly accepted reference point is not sought by the artist. Max Friedlander observed: "Two forces produce dynamic tension in the work of the formative artist: consciously, a never satisfied impulse to get to close grips with nature; and, subconsciously, a fear to come too close to her." He then goes on to quote Goethe: "There is no surer way of evading the world than through art and no surer way of linking up with the world than through art." It is as if the artist "courts" paradox. Informational content, accuracy, and agreement are not central to his effort. Empirical truth—agreement through observable data or rational understanding—while important in scientific method, is not at the core of artistic expression. For the artist, the illusion, the mysterious, the poetic—these have much more to do with art than our agreed upon structures for expressing ideas and feelings. In any ultimate aesthetic sense, I am not at all sure that our agreed upon systems are any more important for the artist than those personal, unique values for which we may not have agreements. Indeed, *our disagreements may be more important.*

The choice is not to be made between the values of agreements or disagreements; between art and science; between the rational and poetic. The challenge is one of reaching forth with as much sensitivity and insight as possible; with the willingness to entertain diverse interpretations of the things we grasp. Admittedly, our social context and the operational nature of much of our lives require that we create systems to enable "agreements"—let's not throw away our yardsticks, watches, and other instruments; nor should we impose inappropriate yardsticks for the sake of "agreement." This is the challenge that the researcher in art education faces—to fail; well; let me describe a possible ending for the story of the blind men and the elephant (as conceived by Raymond J. Corsini[2]): The blind men argued, at length. Each insisted that his interpretation of the elephant was correct: the spear, the fan, the

[1]Max J. Friedländer, *On Art and Connoisseurship*, Boston: Beacon Press, 1960, p. 81.

wall and the tree. As they argued, their voices reached a high pitch . . . "then they began to labor each other with their heavy iron shafted staffs, yelling meanwhile, 'Infidels, Rogerians, Trotskyites, Mormons, Semanticists . . .'" "After a while, all was quiet. And when people came by, they found that all but one of the Blind Men were dead. One of the passers-by knelt beside the sole survivor, and seeing the dying man's lip moving, bent close.

"The others, are they dead?"

"Yes."

"Ah, then . . . then . . . I am right. The Elephant is like . . ." But he then expired, and to this day no one knows what the Elephant is like."

JEROME HAUSMAN

It is with great pleasure that I welcome Dr. Kenneth Beittel as co-editor to *Studies in Art Education.* He will serve in this capacity for a two year period; my own responsibility as co-editor will terminate at the end of this year.

For those of you who know Ken Beittel, my words describing how fortunate we are in having him in this capacity will seem inadequate. He is a person with a deep sense for the role that research can play in giving greater meaning and significance to the teaching of art. His close association with the late Victor Lowenfeld and the very active graduate program at the Pennsylvania State University form a rich background for the responsibility that he has assumed. I look forward to the continued growth of this publication under his leadership.

J.H.

[2]Corsini, Raymond J., "The Blind Men and the Elephant: Three Ends to One Tale," *Our Language and Our World,* Edited by S. I. Hayakawa, New York: Harper and Bros., 1959, p. 295-298.

THE CONTRIBUTIONS OF VIKTOR LOWENFELD TO ART EDUCATION; PART I: EARLY INFLUENCES ON HIS THOUGHT

ROBERT J. SAUNDERS

The work of Viktor Lowenfeld for art education has ended. His influences on art education have not. It is now possible to set within a single frame the contributions of this man. The influences cannot yet be so encompassed; they will continue as long as there are educators, artists, children and parents interested in growing and working by his philosophy, and as long as there are historians of the future to look back to our day and re-evaluate his work in the thought of their own time. The main purpose of this present evaluation is to determine the nature of his contributions, the influences which had the most effect upon his thinking, and their place in art education in the United States.

The Nature of Creative Activity was Lowenfeld's third published book, and the first to be published in English. The two books preceding it were published in German, and as yet remain untranslated into English, and unpublished in this country. *Plastische Arbeiten Blinder* (The Sculpture of the Blind) was published in Vienna in 1934, and may have within it an earlier, apparently unpublished, study: *Enstehung der Plastik* (The Genesis of Sculpture). *Blindenplastik*, a small ninety-six page work, was published by the Blindenjahrbuch in Berlin, 1937.

Of these, the largest and most important, *Plastische Arbeiten Blinder*, was written in collaboration with Dr. Ludwig Münz, the art historian, who photographed the sculptures for the book and wrote a section concerning Gestalt psychology and the creative activities of the blind. For almost fifteen years Lowenfeld had been working with blind pupils at the Hohe Warte Institute for the Blind in Vienna. At first, he was not permitted to teach the children, because the director of the institute at that time did not consider the blind capable of any sort of creative expression, but only occupations, i.e., basket weaving, so Lowenfeld visited them on his free week-ends informally in the big garden of the institute, until

he got acquainted with them. Then he smuggled clay to them, and worked with the children in small groups or individually, but not yet in classes. Later, with examples of the children's sculpture, and the help of interested people (one of whom was Karl Kraus, the poet, who may have been instrumental in getting the interest of Dr. Münz), Lowenfeld was permitted to begin his methods of teaching in classes within the institute.

Over this same period of time, he was teaching daily in the public schools of Vienna. This gave him the opportunity to observe and compare the art of the normal sighted child with that of the blind and the weak-sighted child. Through this he found certain invaluable parallels from which rose the questions leading to answers which in turn formed the basis for much of his philosophy. Through the distortions and over-emphasis of various traits in the work of the blind, Lowenfeld was able to find similarities of approach and methods between the work of the weak-sighted and the normal sighted, of which the teacher who taught only the normal sighted was unaware.

Lowenfeld found it necessary to form a new point of view from which to analyze these works of art. In *Plastische Arbeiten Blinder*, Münz was mainly interested in the sculpture of those who were born blind, and under his influence Lowenfeld formed a stronger theoretical foundation for his own ability to observe the creative process, while the blind was making his sculpture.

> Under his (Münz) suggestion, too, were instituted those developmental series which show that often just those pieces which appear to have little aesthetic appeal enable us, when they are placed in their context, to comprehend the growth or development of form and space conceptions in the blind.[1]

Münz, here, stated the common basis within both the blind and the seeing person for their formal and spatial conceptions, "and with it their relative capacity for articulation of these conceptions."[2] upon which Lowenfeld based the more theoretical premise for his own study, *The Nature of Creative Activity*. However, Lowenfeld, through his study of the drawings of the weak-sighted was able to broaden the basis for many of Münz's theories.

[1]Viktor Lowenfeld, *The Nature of Creative Activity* (2nd Ed., London: Routledge and Kegan Paul Ltd. 1952), p. XV.
[2]*Loc. cit.*

Where Münz approached his research in a more rigidly scientific and statistical manner, Lowenfeld relied more on case studies, and his intuitive understanding of the work of his students. In *The Nature of Creative Activity*, he used more statistical methods to verify the observations made in the earlier work. He was a practitioner who questioned aspects of his pupil's work to further develop his hypothesis, and then investigated the work further to verify it. His own work, and life, was a major influence upon his thought, and when he investigated the work of others it was to both validate, and to re-evaluate his own discoveries.

In the same way that the childhood of Frederich Froebel formed the basis of Froebel's educational philosophy, so did the childhood of Viktor Lowenfeld influence the basis of his own philosophy of art education. But where it was the absence of a mother's sensitive guidance which made Froebel realize the significance of this in a child's moral growth and education, it was the presence of his mother's sensitive guidance and encouragement in the arts which caused Lowenfeld to appreciate the importance of this in the natural growth of all children.

Viktor Lowenfeld was born in Linz, Austria, March 21, 1903, under the sign of Aries—a sign traditionally suggesting leadership, ingenuity, and sensitivity to genius and the creative arts. His father was a business man and merchant. He had one brother, Berthold, a year and a half older, who is now superintendent of the California School for the Blind, in Berkeley; and two sisters, one, Else, four years younger, still living, is now in Israel. Viktor showed an early interest in art and music, and was considered a child prodigy on the violin. At the age of eight he played before the Arch-duke of Austria, and at twelve he played Mendelssohn's Violin Concerto with the Linz Symphony Orchestra, in 1915. Of his child art, there is a painting of mushrooms made when he was ten. The approach is visual, the rendering of light and shadow was accurate in concept, and reminiscent of the academic approach taught in Austria at the time, and a much more advanced concept than what he later considered typical of the ten year old child. It is an excellent painting, but one which in his later philosophy Lowenfeld would have considered an adult imposition upon the mind of a child.

In 1916, at the age of thirteen, Viktor entered art school. His

father served in the Austrian Army during the First World War; and a proletarian family with four children, at this time, had no adequate means of support. Following the war, his father went through the problems of readjustment which were quite prevalent at the time. It was the tendency then to think of peace and the future. Viktor, at fourteen, joined the Zionist movement to rebuild Palestine, an experiment in new forms of living in co-operative groups. Through this movement, and the influence of Rabindranath Tagore who visited a youth camp, Viktor developed many of his attitudes towards personal peace and aesthetic fulfillment. While at the youth camp he taught art lessons to the children, and at one time planned to illustrate the Bible with the drawings of his children.

In October 1921, he enrolled at the University of Vienna, and the same year entered the Kunst-Gewerbeschule (College of Applied Art) in Vienna, and later entered the Academy of Fine Arts. From the Kunst-Gewerkeschule he received a diploma roughly equivalent to the Master of Arts degree; and in 1928 became *Professor der Kunsterziehung*, roughly a Doctor of Education, from the University of Vienna. He minored in Mathematics. He received an Academic diploma from the Academy of Fine Arts, a school which taught the rigid drawing of cones, cubes, and shapes so often considered the epitome of academic stagnation in art education. Between 1922 and 1926 he occasionally visited the classes of Franz Cizec in the Kunst-Gewerbeschule, but was not influenced into accepting his methods.

Over a period of almost fifteen years Lowenfeld taught in the schools of Vienna, first the elementary level for five years, the Gymnasium, and then the Kunst-Gewerbeschule. It was during this time that he worked week-ends and some evenings at the Hohe Warte Institute for the Blind. In 1923 he met Margaret Lowenfeld, who was then teaching in the school where he worked, and they were married in 1926.

While Lowenfeld was a student at the Kunst-Gewerbeschule he studied sculpture under a French instructor, Eugene Steinberg, who taught that sculpture should be produced only by the sense of touch, and not influenced by seeing light and shadow. To achieve this he had his students blindfold themselves while sculpting.

Lowenfeld had to do this as well as the others, and he questioned this complete and deliberate disregard for the function of the eyes, but it was this concept which led to his eventual interest and work with the blind. Thinking it possible then for the blind to be the best sculptors, he went to the Hohe Warte Institute, and failing to get permission to teach the blind children, he began to work with them informally in the garden. He received great excitement in the realization that the blind could also create, and finally with permission to teach organized classes in the institute he was able to experiment and develop his theories, which he may have recorded in *Entstehung der Plastik*, 1934. Through this additional research and his work with Münz, he and Münz co-authored *Plastische Arbeiten Blinder* the same year. With the theories put forth in this second study, and setting up a more controlled procedure of experimentation and testing, Lowenfeld compiled the material which became the basis for his theories on the visual-haptical dichotomy which he presented in *The Nature of Creative Activity*.

Lowenfeld wrote this book, not only to publish his theories on the nature of the creative act of the blind, but also to formulate them into a concept basic to the creative act of the normal sighted person as well. It is here he presented the methods he used, and the history of the development of the visual-haptical dichotomy which is associated with his name in art education in this country. The words "visual" and "haptical" are his, and the development of this theory into practical possibilities for the art educator is the result of his profound insight into the ideas of Max Verworn and Karl Bühler. Through his experiments, Lowenfeld broadened their concepts, balanced them where they differed, and proceeded beyond the limitations he found within them. Verworn, Bühler, and Lowenfeld each tried to carry the significance of this dichotomy into the field of art history and the study of primitive art. Throughout *The Nature of Creative Activity*, but especially in his final chapter, Lowenfeld tried to broaden this concept by relating it to the art of Assyrian, Egyptian, pre-historic, and religious artists throughout history, but this aspect of his philosophy is secondary to our basic concern with art education and will not be discussed in any detail.

In his introduction Lowenfeld reviewed earlier research into

the realms of child art, and the contributions which he found valuable, even though he differed with them. In the works of George Kirschensteiner, Franz Hartlaub, and Siegfried Levinstein he found one limitation to their studies beyond which they could not go; they could not divorce themselves from the aesthetic bias of the adult observer and look at child art as an indication of growth rather than as immature art products. In spite of this limitation, they contributed much new thought pertaining to child art which led the way to eventual break-throughs in this and other limitations. The progress of ideas is made by the continual breaking through of individual thought barriers. Through the aesthetic-adult approach to child art the child's devices of x-ray, folding over, and base lines to represent spatial concepts, although recognized as early as 1887 by Corrado Ricci, in *L'arte dei Bambini*, were considered failures and mistakes by these later observers when judged against adult standards of "perspective". Although they recognized the child's use of symbols and schemata to represent features and spatial relationships, they found in them failures, mistaken attempts, and lack of talent, without first determining these devices to be phenomena in themselves, and exploring them for the principles of growth and levels of creative development inherent in their continual reoccurrence in child art. It was Walter Krötzsch, in *Rhythmus und Form in der freien Kinderzeichnung* (Leipzig, 1917), who first made Lowenfeld aware of the full necessity for such rethinking in understanding child art. Krötzsch was one of the first in Germany to seriously consider scribbling in the development of the child's artistic expression, and observed the necessity of observing the child while he was involved in the process of creating, rather than merely analyzing his work when the process was completed. He did not, however, consider the act of naming the scribbling as significant. It is in this that Lowenfeld made his major contribution to understanding scribbling, by indicating that it is through the process of naming the scribbling and attempting to tell a story that the child brings his imagination into an act which was until then a purely kinesthetic motor activity.

By not being able to approach child art from any but an aesthetic-adult standard, Kirschensteiner, Hartlaub, and Levinstein limited their concepts of child growth, and attempted to fit the

child into rigid standards of limited achievement beyond which they thought he could not go. Lowenfeld, through the rethinking stimulated by Krötzsch's observations, viewed the symbols and schemata as flexible devices which grew and changed as the child's awareness and self-concepts grew and changed. In this very basic flexibility of the child's schemata Lowenfeld not only saw the possibility of creative growth, but based upon it his belief that creativity and increasing use of the imagination could be developed within the child. This was a point which persisted in his philosophy from almost the very beginning, but only recently has it been proven scientifically in its various aspects through the experiments of Guilford and Christensen, and Beittel and Brittain.

One other aspect of the creative act which Lowenfeld found almost entirely neglected in previous works on child art was the "phenomenon of *autoplastic* creation and the expression of valuing tendencies in drawing, i.e., the phenomenon of 'ego-linkage',"[3] or what he later called, "self-identification." Lowenfeld points out the importance of understanding the visual-haptical dichotomy for helping to establish this very important relationship between the child and his expression in *The Nature of Creative Activity*. To explore this concept is one of the basic motivations underlying the research which resulted in writing this book. In testing to prove this hypothesis, Lowenfeld worked with ten groups of children ranging from five to fifteen years of age, numbering about forty in a group. He first determined each child's overall gestalt through individual drawings and history, and then established his control groups to see in which way expression took place. He presented a problem motivating "the visual, as well as the tactile and kinesthetic experiences of form and feeling,"[4]—that of a person, the child, reaching up for an apple hanging from a tree. He had, in all, about four hundred drawings with which to prove his hypothesis. (Although Lowenfeld refers to this study in *Creative and Mental Growth*, he does not describe his testing methods there because they had been published in his earlier book, and to have done so again was not necessary. *The Nature of Creative Activity* is the scientific and psychological study upon which Lowenfeld based his more philosophical and methodological later work.)

[3]Op. Cit. p. 4 (*Ital.* VL). [4]*Loc. Cit.*

That was the test and his methods of proving his theory. The visual-haptical dichotomy does not need discussion here; I presuppose a knowledge of it by readers of this journal. However, in developing his theory Lowenfeld was influenced by the writings of the aforementioned psychologists: Verworn and Buhler. In 1914, Max Verworn published a lecture at Jena under the title, *Ideoplastiche Kunst*,[5] in which he presented a theory dealing with the creative act as approached by primitive man and by children. He suggested two different approaches: (1) the *ideoplastic*, "when the representations do not spring from immediate observation but express ideas, deductions or abstract knowledge",[6] and (2) the *physioplastic*, "compositions consisting of a direct reproduction of the natural object or its immediate memory image."[7] The ideoplastic would be comparable to the motor-sensory approach, or *haptical* type, and the physioplastic to the realistic and optical approach, or *visual* type, as categorized by Lowenfeld. Although Verworn continued to divide each part of his dichotomy into aspects of conscious and unconscious (naive) creativity, Lowenfeld does not so carry through his classification. He makes no such rigid limitations upon his types, as does Verworn, nor does he deny the existence of a continuum between the two types, but states repeatedly that such a continuum does exist. It is each type, in its extreme state, which makes possible the recognition of such a dichotomy.

Karl Bühler was influenced in his early writing by Walter Krützsch, but in *Die Geistige Entwichlung des Kindes* (1918) still approached child art from aesthetic-adult standards, and insisted upon an *orthoscopic view* in the representations of a child's expression through his art, although he did recognize that child art was more symbolic than realistic. However, like Kirschensteiner, Hartlaub, and Levinstein, he considered these symbols as somewhat rigid indications of the level of the child's creative development, basing much of his interpretation on the presence or absence of such symbols. Lowenfeld later observed that the child will not always draw what he knows, but will draw what is meaningful at

[5]*Note*: An earlier discussion of these two approaches might possibly be found in Verworn's earlier work, *The Psychology of Primitive Art* (1907).
[6]Lowenfeld, *Op. Cit.*, p. 131.
[7]*Loc. Cit.*

the time he is expressing his ideas through drawing; thus, he may omit body parts which are emotionally insignificant to him although he may be intellectually aware of their presence on the body. Although Bühler did not recognize any approach to drawing other than the *orthoscopic view*, i.e., no ideoplastic, or if you will, haptical approach, he did suggest two approaches to moulding in clay, which Lowenfeld credits him with developing, and incorporates into his own theories of visual and haptical: the *synthetic* and *analytic* methods of moulding[8] — the *synthetic* being a part of the haptical approach, and the *analytic* being a part of the visual.

Almost pedantically at one point, Lowenfeld questions Bühler's use of the term "orthoscopic *view*", preferring "orthoscopic *representation*";[9] because he had seen this same attempt at realistic representation in the art of weak-sighted persons who could not be considered capable of "viewing" the objects they were attempting to represent. It is this attempt of the weak-sighted, and the blind, to create realistically out of their darkness, in the same way that the normal sighted created out of their light, that evoked the questions Lowenfeld asked of the theories of Verworn, Bühler, and Krötzsch, which helped him broaden his own concepts.

It is with a light touch that we have discussed what seem to be the major influences upon the philosophy of Viktor Lowenfeld, the subtle undefined ones of his childhood and youth, the conscious and conspicuous ones of his young manhood. Perhaps the most significant influence of them all is the one which gave rise to his most significant questions, and in which he found his most significant answers,—the art of the blind and the weak-sighted, the often almost grotesque, misshapen, and beautiful results of their attempts to express themselves.

Lowenfeld placed the manuscript for *The Nature of Creative Activity* with Verlag Fischer, a publishing company in Vienna, but because of the increased action of the Fascists against Jews and the Jewish intellectual, the manuscript was returned to him with the suggestion he send it outside the country. Lowenfeld sent it to Routledge and Kegan Paul, Ltd. in London. It was translated

[8]Note: In 1930, Richard Rothe, Inspector of Drawing in Vienna, recognized this same difference of approach, but categorized them as the "seeing" and the "building" types. Ref.: Lowenfeld, *Op. Cit.*, p. 79.

[9]Lowenfeld, *Op. Cit.*, p. 50.

by Dr. O. A. Oeser, then at the University of Scotland, and published in 1939. The Lowenfelds, Viktor, Margaret, and their son John, aged seven, after many months of hiding, succeeded in leaving Austria, first for England, and then for the United States.

It is his life here, and his most important work, *Creative and Mental Growth*, and its place in art education of the United States which will be the subject of the second article in this series.

RESEARCH IN ART EDUCATION

JUNE K. McFEE

At the last National Art Education Association Convention in New York City two questions were asked repeatedly. "Do we have an adequate definition of *art education*?" "Is art education a discipline?" Much of the discussion in seminars and research meetings centered around these questions. It appeared evident that until some attempts were made toward achieving a workable definition and defining the nature and scope of activity within which this definition operates, progress would be handicapped seriously. *For example,* in a meeting discussing what a doctoral program in art education should cover, the need for a basic definition kept reappearing. In some of the research sessions, the old question of whether research really should be a part of art education was raised many times, indicating a need for defining the nature and scope of art education.

This paper will be an attempt to answer some of these questions. No assumption is made that the definition proposed will be a final one. Continuous redefinition, reanalysis is necessary in a growing field. But, at any given time, to work philosophically, aesthetically, or in research without working definitions which give focus to the activity and sets the range of study, tends to lead to confusion. A field of inquiry that builds its concepts as strongly as possible, clearly defining as it progresses, does not have to repeat itself continually, nor does it have extreme problems of communication between one center of inquiry and another.

A BASIC CONFLICT

Before continuing this attempt at definition a basic conflict in art education needs to be clarified. The very nature of this paper, positing a need for definition, will arouse strong emotional response from many persons in the field. Why? *One,* because the nature of much of the creative act is too subjective for easy definition and analysis. *Two,* a preconceived definition of what he is going to do tends to limit the unfolding of the artist's creativity, as his person-

ality, his ideas, and his materials help evolve his expression. Because of this necessity in much of artistic creation, many artists who teach find the analytical work of those interested in human behavior and education in art somewhat constrictive. A basic assumption of this paper is that art education encompasses both types of inquiry—the intuitive and the intellectual. Creativity is needed in both. In art education as a field of inquiry they are concomitant.

THE SCOPE OF ART EDUCATION

Art education is an area of inquiry and practice rather than a discipline. It draws upon many disciplines. A discipline is a scientific field which does basic research into the elements and relationships in its field. At the present time in both the physical and behavioral sciences, the lines of demarcation between one discipline and another are breaking down and new disciplines are emerging along the borders—biochemistry and social psychology being two examples where biology and chemistry, sociology and psychology overlap. It is possible that a discipline will evolve concerning human behavior in art and ways of developing it. At the present time related work in creativity, art in culture, and perception are taking place in different behavioral fields. Art education, as a field of inquiry and not a discipline, can draw and relate information from these different fields *provided it has people trained to do so.*

Art education appears to have four broad areas from which it draws information:

1. Art—its history, its functions in culture, its wide range of manifestations, its many methods and materials.

2. Human behavior in art—derived from the behavioral sciences, creativity, perception, cultural influences, and manipulation.

3. The educational process—including philosophies of education, research and theories in psychology and anthropology concerning motivation, reward, learning, concept formation, individual differences, growth and development, childrearing practices and past experience.

4. Curriculum development and the practice of teaching art to children and youth in educational systems—establishing objectives, developing the scope and sequence of curriculum, classroom

design, tools and materials, resource materials and community relationships.

A Possible Definition

Art education is a field of inquiry and practice focused upon improving the education of children and youth in and through art. It draws upon concepts, theories and research from art, the behavioral sciences as related to art activity, fields dealing with the educative process and curriculum development.

Roles of Art Educators

As each of us looks over this complex field of inquiry the most obvious consideration is that *no one art educator* can specialize in each of these fields. Also it seems apparent that all of them are necessary to the development of the field as a whole. Further, more of us need a working understanding of more of the total field in order to intelligently utilize information from each part.

Interest in research in art education is growing as the country as a whole is becoming more aware of its necessity. This writer feels particularly that we have not trained enough competent people in research. But at the same time she feels that we must not lose the overall focus of art education, and to see what each of these somewhat separate parts has to do with our main concern—the art experiences of children in the classroom. *For example*, research, no matter how well done, has little value for the teacher in the classroom unless its implications are intelligently brought to bear upon practice. Art history and the study of art in culture have little meaning unless ways are devised to integrate them into the curriculum so that they have functional meaning in the lives of the learners.

Three factors emerge from our discussion. *One*, all of us need to know more about our field as a whole to be able to evaluate and use the contributions of specialists in each part. *Two*, each of us needs to identify his area of specialization and carry it as far as he can. *Three*, our efforts must be made available for the field as a whole to evaluate and use. This journal is designed to meet this need.

If we remain divided between those who reject either a more

scientific or a more intuitive approach to our problems, between those who develop theory and research and those who practice it, we will be very slow in developing a strong field of inquiry and our practice will be spotty and weak.

At this moment, mankind appears to be more seriously evaluating his *raison d'etre.* Values, attitudes and practices are being questioned on every hand. Art is one of man's most important means of self reflection, evaluation, and communication. If, during this period of reevaluation, art educators can produce a field of inquiry that is scholarly as well as aesthetic, intellectually disciplined as well as intuitive and creative, the contributions of art to education can be made more explicit. This is necessary to communicate to society about the values in art education as well as to improve the field.

IMPLICATIONS FOR TRAINING IN ART EDUCATION

The Classroom Teacher

The education of the classroom teacher, whether for elementary or high school, should include some understandings of the contributing fields. All of them cannot be taught by the professor of art education. Much of the learning about education, educational psychology, anthropology and sociology, takes place in other courses. Art history and art activities are often taught by other members of the art departments. The professor of art education needs to be informed particularly about what is being taught in these courses, be able to draw upon them and amplify them, to help the teacher in training integrate them and put them into practice.

Art education for the classroom teacher will vary in different institutions depending in part upon what is taught in other courses. It will also vary with elementary and junior and senior high school teachers. The program needs to be developed in terms of the total learnings of each group, courses in art education being the capstone that pulls it all together. Too often these classes have dealt mainly with methods and materials without enough attention given to the foundations of art education. Often there is not enough time allowed to cover it all and a compromise has to be made as to what is important. *For example*, which has the better preparation, the teacher who knows little about art materials and their uses but a

great deal about children and the educational process, or a teacher who has considerable confidence in using art materials, knows a great deal about art, but little or nothing about children's behavior in art, their individual differences and how they learn? Most of us would agree that both teachers are going out to teach with serious handicaps. When our field is more clearly defined and we have more empirical evidence about the educative value of art experiences, we will have a better argument for requesting more time for art education in teacher training.

Advanced Degree Programs

The definition of art education proposed here has particular implications for the training of doctoral students in art education. More and more the Master's Degree is becoming concomitant with teacher certification. The doctoral program in art education appears to train people for three kinds of roles. *It needs* to train professors of art education who have broad understandings in all four areas of art education: art, behavior in art, the educative process, and practice and curriculum development. *It needs* to prepare state, county and city supervisors of art by giving them broad understandings in the foundations of art education, to encourage and direct better practices in the classroom through in-service training, supervision and consultation. *It needs* to train researchers in the field who can use research from the other fields; who can direct research in human behavior in art, and test curriculum content, methods of teaching, and art processes for the classroom. Research needs to be done in all four of the contributing areas.

A fourth possible role for doctoral programs in art education is the preparation of artists as college and university art teachers. Their program would differ somewhat from the others, but broad understandings of art, of human behavior in art, and their students' individual differences in learning could be very useful.

According to this definition of art education the written and oral examination of doctoral candidates should attempt to evaluate the student's competency in using information from all these fields. The study and research necessary for the dissertation can focus on the area of specialization.

The nature of differences between the Doctor of Philosophy

in Education and the Doctor of Education, rather generally, is that the Ph.D. is geared to more basic research, historical, philosophical or experimental. The Ed.D., while requiring skills in research, has more direct applicability to practice. In no way need it be less scholarly, less critically analytic. Often it can develop within the crucial area between basic research and practice. It can take generalizations from controlled experimental evidence and try them out in classroom situations with as careful analysis and control of variables as possible.

The plea for a broad base, plus areas of concentration, is made because of experiences in other fields where concentration is so great that members of the same field cannot easily communicate with each other about their work. We find ourselves with a serious schism—the more intuitive vs. the more intellectual. The broad basis appears most necessary to bridge this gap and to build a strong area of inquiry and practice.

SUMMARY

In brief this paper has attempted to show the scope of art education as a field of inquiry and practice focused upon improving the art experiences of children and youth in school. It is posited that to do this with continued success, art education should draw more effectively upon the contributing fields of art education—the study of art in man's experience, the nature of human creativity and behavior in art, the educative process, and the utilization of these fields in curriculum development. In terms of this definition teacher training at all levels needs to have a broad basis in the contributing fields as well as in areas of specialization.

THE LOCI OF CREATIVITY IN ART

ELLIOT EISNER

The treatment of types of creativity, as distinct from the treatment of creativity in general, may have two major assets. First, behaviors now excluded from our conception of creativity in a general sense may be brought into a wider conception of creativity. Second, if we are to undertake an analysis of art which works with an eye to the different sorts of "creativities," "originalities," etc., which they exhibit, we may arrive at defensible views about the different kinds of creative competences which may characterize different individuals. The educational use of such a discovery is fairly obvious: we will be able to identify nascent creativities among our students and try to nurture them. But before a typology of creative behavior can be developed, it is important to identify the places at which creativity can be exercised in art and to examine some of the requisite elements in creative behavior generally. Indeed, some of these elements are common to all behavior; and we need to be clear on how creative behavior, in a general sense, differs from behavior that is noncreative.

In order to do this the author will use the following diagram. Of central importance in the diagram is the actor without whom no action can take place. The actor is an individual in a situation. The other crucial component in the situation is something to be acted upon, a "matter". "Matter" is here being used to signify anything that can be modified.

A third element in our diagram is commonly called motive. The motive may reside in many areas. It may reside in the unconscious mind of the actor, as an inchoate need to express, an urge which he finds impossible to express directly. On the other hand, the motive may concern the matter primarily rather than an independent urge or these may be combined. A motive too may be governed by powerful psychic needs, in which case the actor forces upon the matter a preconceived structure. If the psychic need is governed by cooler cognitive controls, the actor may take his cues from the matter and follow its "suggestions" by recognizing what

is possible with the particular matter. The actor, then, may act upon the matter as he recognizes and accepts its "suggestions" or he may force the matter to become what he preconceives it should become.

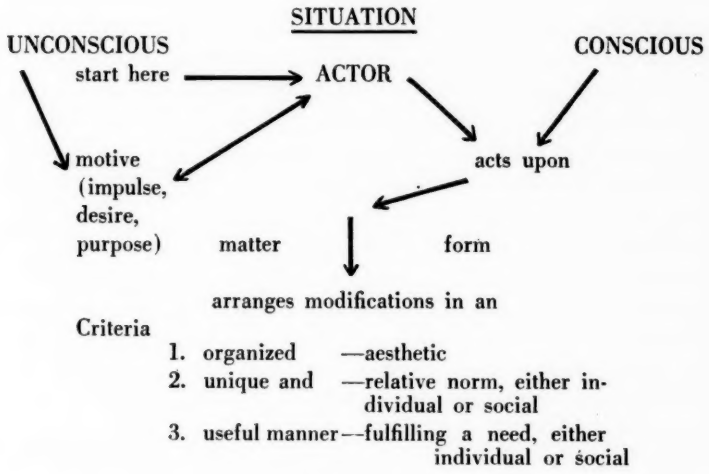

FIGURE 1

John Dewey suggests a triad of concepts which can usefully serve to distinguish between certain parts of human activity. Dewey's concepts of impulse, desire and purpose are used to define stages of behavior and to show that educative experience should eventually result in a *conscious* formulation of purpose. While Dewey did not specifically relate these ordered stages of creative activity in the region of the Fine Arts, they are crucial for his conception of the successful resolution of problematic situations. Such a resolution is a putting together in effective harmony some parts of the problematic situation which are dissonant. This is a paradigm of the creative act in general.

Impulse may be defined as an inner striving or urge. It is so evanescent that it is a quality felt rather than identified. Dewey does not distinguish, nor shall we, between impulses that may be instinctual and those which are the products of experience.

When impulses are frustrated, desire is generated. The first

distinction between desire and impulse is that desire is conscious. Desire represents a selection among impulses. It becomes a conscious want. An individual desires some thing. He wants to have or to do this or that.

However, the stage of desire does not lead to a product. Desire, like wishful thinking, does not lead to conscious, organized activity. Indeed wishful thinking at its extreme is downright pathological. Creative activity must display some concrete manifestation of that which is thought or felt. It is at this point that purpose enters the picture. Purpose may be defined as a selection among desires by reference to circumstance and outcome. Purpose in this sense is a conscious formulation of method and direction of future activity relative to the satisfaction of some desire.[1]

"A genuine purpose always starts with an impulse. Obstruction of the immediate execution of an impulse converts it into a desire. Nevertheless neither impulse nor desire is itself a purpose. A purpose is an end-view. That is, it involves foresight of the consequences which result from acting upon impulse. . . . The formation of purpose is, then, a rather complex intellectual operation. It involves (1) observation of surrounding conditions; (2) knowledge of what has happened in similar situations in the past, a knowledge obtained partly by recollection and partly from the information, advice, and warning of those who have had wider experience; and (3) judgment which puts together what is observed and what is recalled to see what they signify. A purpose differs from an original impulse and desire through its translation into a plan and method of action based upon foresight of the consequences of acting under given observed conditions in a certain way."[2]

Purpose, it must be remembered, while embodying a plan and method of activity, is not overt activity itself. Purpose remains a vision, although a precise one, until it takes form in some matter. Many factors affect the externalization of purpose by way of the modification of matter. Possession of the necessary manual and cognitive skills, social permission, or the willingness to accept the

[1]We acknowledge debt to Joseph Schwab for this interpretation of the sense of the triad.

[2]John Dewey, *Experience and Education*, the MacMillan Co., New York, 1957.

punishment that society will administer, acquisition of media, all these affect the manner in which the problem is solved.

Dewey explicitly criticized pseudoprogressivists who allowed children to engage in purposeless activity. But the span between "mere" activity and an unswerving purpose is not an empty space between qualitative extremes. Neither whimsical activity nor rigid purpose provides the maximum scope for creativity. It is the *flexible* purpose which best serves this end. This is because purposes *necessarily* change during the act of achieving. Such a change is inevitable because the selection, which is the heart of purpose, has rested on an estimate of the surrounding situation. This estimate is refined and corrected as the situation is changed by the creative acts.

In the case of the visual fine arts the progressive refinement of purpose is consciously sought by the manipulator of the material. Thus the modern painter may discover and reject various purposes as he makes discoveries on his canvas. The manipulation of line, color and forms provides an everchanging array of possibilities from which purpose can be derived. Thus Aristotle remarked, "Art loves chance."

The development of purpose from impulse through desire is not always conscious. Nor is it desirable that it be so. To try to work only from a conscious level is to shortcut the creative work of the unconscious. However, it is a mistake to confuse unconscious work with mere surviving elements of unpurposed impulses and desires. It is indeed the case that impulse and desire do survive through the development of purpose but insofar as an impulse is expressed without being related to the artist's purpose it will be an intruder, it will interfere with the coherence of the work as a whole.

When the actor modifies material and creates various forms, impulse and desire may guide his modifications. As the actor becomes aware of the unique qualities of these unpurposed modifications, a major decision must be made. The actor must determine the aesthetic quality of the specific modification as it relates to the potential work; he must decide whether the specific modification contributes to or detracts from it or he must revise his notion of the potential whole. Many times the artist must eliminate

or change modifications at various stages in the work because they do not satisfy this criterion. When the actor is unable to decide or does not act upon his decision, the work suffers because of it.

The importance of such decision cannot be underestimated. Since the component parts of a visual object always exist in a relationship to one another, any change in one of those parts creates a new visual relationship between all the other parts so that a minor change of one element may necessitate a major reordering of the others and what holds for visual art objects holds for others as well. When impulse and desire are allowed to enter freely into the work, the actor may begin to "discover" and take advantage of the chance modifications that could not have occurred if plan and method were severely adhered to. The products of these impulses and desires may be the characteristics that give style to the particular work and that make each art product a partial stamp of the actor's unique personality.

Thus far we have briefly discussed the actor and a triad of concepts relative to stages of his behavior. The parts of this triad may be subsumed under "motive." But thus far no firm distinction has been made between general behavior and creative behavior. Acting upon a matter has some consequence to it. In some way the matter is altered or modified. We assume that modification of matter can be haphazard and sloppy or it can exhibit organization. The four-year-old child playing with clay may modify it in order to enjoy its tactile quality; if so, he plays with it in a motivated fashion but the motivation has little or nothing to do with the organization of the clay. The amateur sculptor using the same clay will modify it with motivation to organize, but we still may find the amateur sculptor uncreative since he may have imposed only conventional and stereotyped ideas or patterns.

On the other hand an amateur sculptor may have an impulse which is converted into a desire to sculpture a human torso. The desire being conscious becomes partially converted into purpose, whereby plan and method are formulated. The sculptor obtains the necessary material, clay, wire, and metal tubing and begins to apply and modify the clay around the metal armature. As he works, he maintains his purpose and his torso begins to take

shape. But as he works some impulses and desires unconsciously direct and guide the way in which he forms the clay. Textures and forms come through in unplanned ways, certain aspects of the figure may be accentuated, other aspects may be reduced in size and importance. As the sculptor works he begins to discover these unique forms and textures and he suddenly envisages new forms different from others he has seen which incorporate the products of the unconscious and point to the modification of the products of his earlier, more conventional purpose. His hand is capable of making real this new conception; the final product is a remarkably moving expression of a central purpose, and all details of the image together with the relata are in congruent harmony. Finally the problem is resolved as the sculptor feels the unity and harmony of his work. Critics may then say that the sculptor deserves to be called "creative".

We propose in short, that the creative art product is one which is (a) useful, (b) organized and (c) unique. Usefulness is determined by how well the product functions in service of larger ends. Function can be viewed as a way in which a part serves this larger context. The aorta has a function relative to the heart. The heart has a function relative to the body. Men have purposes, willed goals; objects may have functions. The creative product is a functional entity. It works relative to a larger context.

One of the creative art product's defining characteristics, uniqueness, describes, in qualitative terms, the relative novelty of this function. Mere uniqueness, like mere functionality, does not define the creative product. Even functionality and uniqueness combined provide no assurance that the product is a creative one. We can all recall the famous Rube Goldberg cartoons with their unique and contrived contraptions. These contraptions did not exemplify creativity because their usefulness as contraptions was nil. They are unique and functional but not useful outside of their comic character. And this is precisely the area in which we might consider Goldberg creative. The creative product has the ability to serve valued ends. It is valued by people outside of the producer. It is more than "clever", it is significant, it serves some important purpose of man. It is in this sense that producer and consumer, art and viewer are mutually dependent, at least at a

given point in time. It must be remembered, however, that the standards of value are themselves temporal and subject to change. Standards are altered when value is perceived. The perception of value resides partially in the second party. Schizophrenics frequently produce novel products. The value and usefulness of these products to second parties, however, is not very high.

Sometimes products are created by men of rare imagination, which have utterly new characteristics which seem to stem from no previous product. That is, while an earlier product may have given impetus to the actor in taking action, the matter he acts upon is new, a discovery perhaps, or a theoretical model growing out of his imagination in which the model contains a concept that is newly found (although the model may still contain "old" concepts as well). Einstein's $E=MC^2$ is an example of such a completely new and useful concept. What Newton did not imagine or discover, Einstein did and in doing so reshaped our conception of the universe. Einstein's contribution was completely new: it was not merely a unique modification of an old product but rather a creation of a new theoretical relationship which modified and eliminated some old concepts.

> Einstein's achievement is one of the glories of man. Two points about his work are worth making. The first is that his model of the world was not a machine with man outside it as an observer and interpreter. The observer is part of the reality he observes; therefore by observation he shapes it. The second point is that his theory did much more than answer questions. As a living theory it forced new questions upon us. Einstein challenged unchallengeable writs; he would have been the first to claim that his own writs were beyond challenge.[3]

We need to be clear on the fact that we can never see the creative process "qua process." We must infer the nature of the process from what we can observe. Therefore, we must know what is observable and what is not. Certain natural observables exist for us. These observables reside in the natural products of man, i.e., his art, his science, and the products that he creates for the mastery of his environment. These observables are natural because they grow out of man's real problems as he copes with various tasks in his environment. Artificial observables are those observ-

[3]James R. Newman, "Einstein's Great Idea," *Adventures of the Mind*, New York: Alfred A. Knopf, 1959.

ables which arise from test situations in which man is presented with problems in order for other men to ascertain how he will solve them. It should be made clear at this point that we are dealing with observables as a product, some *result* of a man's actions. This result, either artificial or natural, can give us clues to the creative process.

Another type of observable (which this paper will not consider) falling under the general classes of natural and artificial are the actions of men; the machinations (in the physical sense because we cannot see mental operations) can be viewed in relation to the resultant product or as creative products themselves. It may be that the actions of men who produce creative products differ in character from those who produce non-creative products. Tests such as the Rorschach and Thematic Apperception Test have attempted to provide psychologists with clues for better understanding of the mental process of the individual. These tests have, to some extent, succeeded in providing useful information in regard to man's motives and perceptions. Since the subjective experiences of men cannot be seen, we must infer them from what can be seen, namely, the actions and the productions of men in both natural and artificial situations.

We will use the three concepts in our definition of the creative product as criteria: tools with which to separate creative art products from the world of art products in general. These three concepts will be used in relation to the social milieu in which the product exists. Although all creative art products will meet these criteria, we will find that the products can be further differentiated from one another and can be described relative to one or more of four types of modification which brought the product into being. A description and analysis of these types will not be proffered in this paper.

It would be well to differentiate between the meaning of creation and creative. Creation relates to any individual's product. A table, lamp, painting, or cake can be said to be a creation. We speak of a creation as any product that can be brought into being by some individual. The word creation has no necessary qualitative connotation; it does not distinguish or differentiate between the products produced by individuals. Creation, therefore, is a generic

term synonymous with something which is made, constructed, built, or produced.

Creative is a differentiating term that confers a fundamental qualitative characteristic upon the product. An individual may create a creative table. A creative product is one which is not merely the result of an individual's constructive efforts, but is also unique, useful, and organized. The creative product can be said to help man see or use the world in a new way. The creative product uniquely explains, expresses or serves. The more creative a product is the longer it may serve mankind and the more generalizable it will be. If, in the twentieth century, an artist was found who could duplicate the work of Raphael, he probably would not be considered creative. We certainly consider Raphael a creative artist and yet if the twentieth century artist is not considered creative even though he is able to duplicate Raphael's work, then there must be a factor outside of the work that determines whether or not it is considered creative. One of the factors that determines this and that places the product in the world of creative products is its ability, especially in the area of the visual arts, to extend our view of the world for those who see its unique qualities. (This criterion falls under the general criteria of useful and unique.) Raphael has already succeeded in extending this view. This window is already opened, an imitator cannot open it again. This is one reason art must move. The artist is always exploring the unknown and the creative artist sheds light on the unknown and thereby broadens our view of the horizon. Raphael's work, is of high creative quality and holds meaning for us in the twentieth century as it did for people in the sixteenth. To be sure we do not and cannot experience his work as a sixteenth century Italian, but such great works contain a quality, central to man's being, which is most constant and durable.

In addition to differentiating between creation and creative, let us also consider the meaning of the following: distinction, differences and terms. Distinction refers to parts of a whole, an arbitrary "slicing up" of some matter. The five acts of the tragedy are distinctions made within the boundaries of the play. Distinctions can be made between the right or left side of the human face. Such distinction helps us become more precise in our desig-

nation of parts of a whole. We may attain further specificity by designating each distinction with a term; a symbol of *precise* meaning. While we use terms to make our distinctions more precise and communicative, we are not sure that such distinctions are in fact differences. Distinctions may become differences if, in fact, we can show that each distinction is unlike another. By differentiating one part of a whole from another we must know in which way they differ. Creation and creative as concepts are differences not distinctions, while the top and bottom of a painting are distinctive parts whose characteristics may, or may not, be different. The words "top" and "bottom" are terms which have fairly precise and limited meanings. Such terms are used as tools to help man symbolize a conception of his sensory perceptions. Such terms, however, may not be differences and we must be clear that confusing difference with distinction can only cloud our vision and hinder our understanding of the many distinctions within the area of creativity.

Let us now look to the loci of creativity in art; the places at which creativity can be exercised. In order to locate these places we need to view the art product as a complex of separate elements so organized as to constitute a vital whole. Indeed the vitality of the art product is precisely due to the sensitive and dynamic interplay between its elements. It is in this sense that the elements themselves are not separate but maintain specific characteristics because of their relationship with other elements within the scheme of the work as a whole. Such parts then, are mutually determined, they act and are reactive to other parts within the complex matrix. For purposes of analysis and inquiry we will view the work as a whole but we will try to determine the nature of the separate parts and how they contribute to this matrix. In attempting to do this there are certain potential pitfalls.

"Among these signs of novelty, the tendency toward abstract treatment can be of value to us, both as a warning and as a fruitful source of suggestions for more defensible treatments of the problem. For I have in mind, when I use the word 'abstract' not schematisms at a high level of abstractions, but studies in which some one facet or aspect of the whole is singled out for treatment. This kind of abstracting can be done either knowingly or unknow-

ingly, of course, and in the former case it is an extremely useful first approach to any problem, provided that the author and reader alike keep firmly in mind that the part if not the whole and that, further, the part abstracted may have been warped by removal from its normal context."[4]

Let us begin then, by being aware of these pitfalls and take care to avoid them. They can be avoided if, in the process of abstracting an aspect of the work of art for purposes of examination, we maintain as the frame of reference the remaining whole of which it was a part. This method of visual analysis is not without precedent in aesthetic criticism. It is indeed by the very process of analytical appraisal that the complexity of the work is felt and understood. The work when viewed *only* as a whole is amorphous. Its elegance and design are hidden in the swift shifts and interplay of its elements. While the sensitive viewer may start with a whole, the process of viewing evolves into a clinical appraisal of the work. Intellect begins to examine so that the soul might feel. This manner subsequently evolves into a visual closure of these separate elements so that the viewer sees the whole once again. This dialectic interplay between part and whole feed upon one another for their mutual fulfillment; as the part affects the whole, so is the whole affected by the separate parts.

The following diagram designates parts of the visual art product.

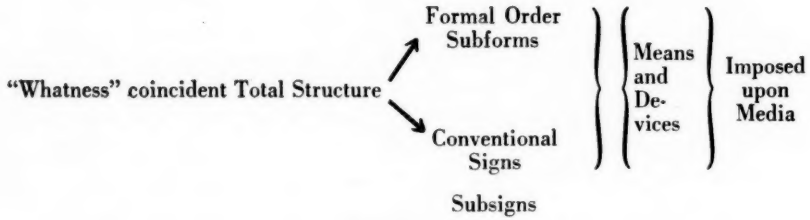

FIGURE 2.

The "Whatness" of the art product is defined as the unique and central spirit of the work. It is the art work's "personality." If

[4]Joseph Schawb, *Eros and Education*, Faculty of General Studies, University of Puerto Rico, 1958.

we visualize various works of art that we have experienced intensely, it is not difficult to concede that each of the works we envisioned has a unique spirit that differentiated it from all other works of art. Pietas by Giotto and Duccio are simply different. Their effects are distinctive and they elicit different responses. The "whatness" of the work of art is coincident with its total structure. The total structure is composed of all of the perceivable elements in work plus those aspects of the work which reach the viewer through subliminal channels. The total structure then is something more than the combination of the separate elements; it contains, as a result of the various combinations, a spirit or personality which results from the fusion between the separate parts. It may be that the subliminal aspects of works of art are essentially incompatible with a logical symbol system that attempts to classify it. It may very well be that the nature of our knowledge about and from a work of art cannot be reconciled within the limits of rational systems not because the limits of such systems are too narrow but because the system itself operates in a domain which *ultimately* is different. Language is not the road to all knowledge, it is not even necessarily the road to most knowledge. Many ways of knowing exist for mankind.[5] Ultimately visual art is neither logical or illogical, it is alogical. Its domain for human experience resides in an alogical universe.

The total structure is partially composed of two areas of experience: form and content. In our diagram these areas are labeled the formal order and the conventional signs. Each of these two aspects are further divided into their sub parts which constitute each. The formal order is composed of the total relationships of all of the subforms. The subforms are defined as those elements which constitute the major forms within the boundary of the picture plane. An image, therefore, within the boundary of the picture plane has both a unique pattern and a relationship to the other forms. The relationship between the forms and their content vitally affects the unique pattern or subform.

The conventional signs are defined as those patterns to which symbolic meaning is attached. An image of a man is both a pattern

[5]Andrew Halpin, *Ways of Knowing*, a paper delivered at the Invitational Conference of Superintendents, held at the University of Chicago, November 5, 1959.

and the symbol of a man. The use of the term conventional sign was chosen because signs, as conventions, imply that as a convention is changed over time, through cultures, the meaning of the sign is also changed. Even within the culture, signs take on different meanings due to the differing conventions within various subcultures. Indeed some signs in the visual arts may be completely overlooked by individuals who have had little or no experience with the sign itself. The meaning and impact of microscopic form to the geneticist differs from, or may be completely overlooked by poet or historian. A major problem in the visual arts is to account for symbolic meaning and its relationship to the "whatness" of the work of art. This omission has been especially prevalent by the orthodox modernist's viewpoint that an awareness of form alone is sufficient for the artistic experience *even when conventional signs are present.* Means and devices are defined as the technical ways in which forms and signs are bound together. They constitute the manner in which forms and signs are so ordered that specific affect is achieved. Pointillist and cubist techniques are ways in which forms and signs are treated for specific effect. On the stage a dramaturgical device used by authors is to have a character alone on the stage as the curtain rises in order to give the audience, through dramatic monologue, an accounting of what has preceded the oncoming action. In painting the artist may illustrate large looming forms in the foreground in order to heighten the depth of the picture. The artist may surround a tone of gray with vibrating color patches in order to make the subtlety of the grayed tone more apparent.

The medium is defined as the material used to exhibit all of the specific elements within an art product. Formal order and conventional signs come into being as an art product, as the artist utilizes the means and devices within his power to do so. The means and devices so used are imposed upon the media and are in turn governed by the limits of the artist's creativity and the nature of the media itself.

The focus of the artist as it is formulated through subject matter provides us with examples of how visual orientation has changed through time. Such changes exemplify one aspect of creative behavior.

Man's earliest attempt at pictorial art had as its focal point the world outside man. The animals that inhabited the Lescaux region became the primary subject of the caveman's art. As man perceived his environment and as he attempted to portray it through pictures, he infused a part of himself, through his perception, in his pictorial expression. The art of the middle ages also focused upon the outside world. The world of the spirit, the images of God and saints and of symbols of the faith were the subject of man's art. The artist saw nature and had an image of God and attempted to faithfully imitate that which he visioned. As man's self concept became more noble and as his worldliness increased, his art became more reflective of his outer world. Man's passions, his fears and joys, though all infused in the replication of the outer world, were not subjects to be painted in themselves. Man and nature were the vehicles for expression and the artist's task was to succeed in a faithful portrayal of both. The focal point, then, of man's art was something outside of himself, the people, the landscape, the images of his faith. The inner part of man's self, his feelings, were infused into his perception of this outer world but were an unconscious aspect of his art. The focus of man's art until the turn of this century was what man could see or what he could imagine. Man has attempted to say something about the outer world through a relatively faithful imitation of it.

Around the turn of this century man began to view the world in new and provocative ways. He conceived of a new inner world focus for his art. His world of self, of feelings of yearning and hope, of anger and hate, became a world more real than the mere visual world that he could see with his eyes. His feelings became worthy of artistic description.

Red, blue, green, black and white could not only be used to illustrate the patterns of nature but they could also be used to express and organize his innermost feelings. Painting became a way to translate man's inner world. No imitation was necessary. Man did not need to imitate the visual patterns of nature of the outer world in the narrative painting. His inner world was now becoming a focus for his art. The flash and movement of brilliant colors, the quick motion and force of bold lines, provided both a direct outlet and immediate experience to both viewer and artist.

In describing man's inner world, a universal subject unfettered with cultural and chronological chains, the artist provided man with a description of the naked insides of his self.

Man's efforts at painting the inner and outer world share a common characteristic. In both types of painting an attempt is made to communicate to the viewer. In both types of painting the artist attempts to attain a literal or emotional communion between himself and the spectator. The Pieta by Giotto and the Kandinsky composition share feeling and idea with the viewer. While some types of painting differed in focus, they did not differ in their objective: communion.

With the advent of impressionism and cubism painters began to use the outer world not for literal description but as a means toward a new concept in seeing and as a new mode of organizing form. Cubist art moved from the realm of communication, which was a primary objective of art, to the realm of new visual experience. For the first time new ways of seeing and new things to be seen became an essential concern of painters. Once this door was ajar the artist became free of either replicating what he and others saw or of expressing what he or others felt. New organized visual experience became a legitimate objective for man's art. We find artists like Mondrian, Gabo, Burri and Albers attempting nothing more than superb graphic and plastic organization. We find many twentieth century artists using form as an end in itself. Their problem is one of the pure organization of form and color. They seek to create new visual experience through new thresholds of visual endeavor.

Imitation of the outer world, translation of the inner world, and the creation of new visual experience have been three focal points that man has used for his artistic efforts. The three aforementioned foci are not easily distinguished for they overlap and fuse together at many points. But with such a framework we may begin to see works in more meaningful ways for each painting has an appropriate frame of reference. The more skillfully we can apply the appropriate referent, the more acutely will we feel and understand the artist's contribution.

There are other places within the painting where creativity can be displayed. The artist cannot apply one stroke to the canvas

without having some focus on subject be it the outer or inner worlds of experience or the creation of new visual experience. Something must be painted, some goal sought, some resolution made or the canvas remains white. As subject is a vital aspect of the painting mode, form too is indispensable to it. One cannot have painting without form as one cannot have painting without subject; they are mutually determined. Once form is recognized it is possible to differentiate between the various components of it. One stroke on the surface of an area creates a multiplicity of relationships. At once there exists color, texture, line, shape and composition (composition being defined as the relationship between the stroke and the area that surrounds it). These five components occur simultaneously; one cannot exist without the other four existing also.

Matter, the third essential component in the painting mode, is so obvious and essential a component that we sometimes neglect its presence. The material that the artist uses partially defines and limits his treatment of both subject and form. What one is able to create and how one creates it is somewhat determined by the material one uses. Transparent water color and gouache place different limits on the artist's efforts. Each having its own peculiar nature affects both the means and the ends of the painting. The sculptor with the welding torch has avenues of creation that never existed for a sixteenth century Michelangelo. The conjoint relationship between subject (as it exists in conventional signs and form) and matter is mutually determined. We may examine this relationship between subject, form and matter to see how artists have used each component to redefine and extend the limits of the others.

Let us begin with an examination of some of the subjects of the outer world as portrayed by artists. Within the realm of outer world subjects the artist has great degrees of flexibility in both his choice and treatment of subject. The move from portraiture to landscape painting was partially a result of a recognition that the landscape was paintworthy and that it could afford both the artist and the viewer with unique painting and visual experience. This awareness, this recognition of the possible, extended the limits of painting as a mode of artistic expression. If we begin

with the Middle Ages, we will see that man has continually progressed and expanded his subject matter within the outer world of experience. From portraits of saints and gods there developed illustrations of noblemen and benefactors. From the illustrations of the wealthy there developed a portrayal of the common man. For numerous social reasons the artist's subjects evolved in order, from God-like to man-like. The artist is always seeking new vistas and new subjects to be painted. In addition to the choice of human subject that became the focus of the artist's efforts other areas of experience became paintworthy. Still life, sea scapes and city scapes, all provided the artist with more and more subject matter to draw upon. While we in the twentieth century may look upon such subject matter as commonplace, each new outer world subject was initiated by artists with creative insight. Each artist who contributed to the development of greater variety of subject matter was displaying an aspect of creative behavior. It may be that with the near exhaustion of the various classes of subjects within the outer world of experience man began to look inside of himself for a new source of subject matter. The cubists seemed to recognize the near exhaustion of a single view of outer world subject matter, and began to explore multi-view aspects of the outer world subjects that they painted. Cubist art was creative in two ways, first in its uniqueness of concept and second in its treatment of form. Cubist art focused on the outer world and attempted to reorder it. The advent of the portrayal of essentially inner world experience in art begins with surrealism. Munch, Dali, and Chirico used the outer world as a means to give expression to the inner world. While outer world subjects were used, the focus remained internal. This conscious fusion between inner and outer world seems to be a necessary step between the control and premeditation of Seurat, and the expressionist pictures of Kline, Klee, Okamura, and Kandinsky. The choice of subject matter has changed and expanded throughout the history of art and remains to this day a potential locus of creativity within the field of art.

Still another locus of creativity lies in the means and devices used to treat subject. Seurat's "Sunday on the Island of Grande Jatte" is an excellent example of creative treatment. Seurat's selection of a park scene for a painting was not a new idea.

Artists since the Renaissance had used such subjects. It was a common practice to paint people in such settings. However his treatment of this subject through the application of color patches was a creative approach to this subject. Pointillism was a creative mode of artistic treatment because it provided man with an organized, unique and useful view of visual reality through its daring concept and application.

The treatment of portraits, interiors and still lifes by the Fauve group was another instance of creative treatment of commonplace subject matter. With splashing color and bold strokes the Fauves painted objects as they never before were painted. The cubist concern for dimension and volume was preceded by the Fauve concern for brilliant color. Each group treated subjects in unique ways, each group added a new perspective to visual experience.

The juxtapositions of unrelated objects in Chirico's work is another example of an unique treatment of subject matter. In the work of the Surrealists each object uniquely affects and psychologically modifies the other. Burning giraffes and melting clocks, artichokes and locomotives, due to their phantasy and unrelatedness effect an unusual quality of experience.

Another major locus of creativity lies in the artist's choice and use of form. A brilliant example of how an artist creatively utilized linear form can be found in the work of Jackson Pollock. Pollock uses line in a dynamic and moving way. His method of application, in itself a creative act, helps him create linear movement that cannot possibly be achieved with brush application. The swirl and splash of line, its rhythmic flow, provide the viewer a tempo of visual experience that is quite unique. Pollock utilizes a major visual component, line, to achieve new and vital modes of visual experience.

Franz Kline's bold black brush strokes are a result of the artist's creative insights into the possibilities of form and anachromatic color. Kline's choice and use of form, his seemingly simple and direct application, his powerful organization of space, bring the viewer new visual experience which has moving emotional qualities. Calder's dynamic use of form as exemplified in his mobiles is an excellent example of how a creative artist can put

form to work in a new and unexplored fashion. By moving objects through space and by creating *actual* linear flow, Calder has succeeded in providing the art world with an organized and aesthetic movement of color and line. The soft flow of the mobile, as it moves through space, provides the viewer with new and ever changing visual experience. Artists who have recognized new possibilities in the choice and use of form have been able to open up new thresholds for art experience. As each new threshold is found and advanced, greater creative possibilities exist for the artist. The exploration of the possible with the given may be likened to an ever widening upward spiral whereby the possible itself becomes a given susceptible to new possibilities.

When we experience a work of art, a painting, a sculpture, a symphony, or a novel, we do not evaluate its quality as a creative work in relation to the artist's age. We do not care if the artist was forty-five or sixty when he created the work. One method that is commonly used when evaluating the quality of the art product is that of comparison. That method varies with perception and taste, but sophisticated art critics use, as one evaluative criterion, a comparative estimate of a work in relation to other works created by men who have reached chronological maturity. This practice does not hold true when we evaluate the products of school children. When we evaluate the art products of school children we cannot use an adult standard; we use our knowledge of the individual child and the maturity norm for each developmental level. We also consider the product and evaluate its characteristics and quality in relation to the specific group from which it comes. The product of a seven-year-old might not be considered creative if compared with a group of products made by thirteen-year-olds. We hold different expectations for the various maturity levels; what is a creative insight for a second grader may be commonplace for a seventh grade child. In addition to knowing the maturity level of the child that made the product it is a great asset, if not essential, to know something about the social tone of the group of which the child is a part. The various degrees of permissiveness or restrictiveness within a group may affect the freedom of the child to make a creative product. Since one of the creative products defining characteristics is its uniqueness, we

may hypothesize that the more restrictive the group, the greater difficulty the child would have in breaking the mental field that surrounds products and productions within that group. Restrictive groups will tolerate less personal freedom and provide fewer opportunities for experimentation and innovation than will groups with greater degrees of permissiveness. It is difficult enough to produce a creative product without having to buck the attitudes and values of one's social group. By being aware of the social tone from which the child-creator has come, the evaluator is in a more effective position to make a valid judgment as to the quality of that child's creative product.

This relationship between product and society, producer and consumer, presents a problem of great magnitude both philosophically and in the practical efforts of men to understand creativity, the process and its products. If we agree that the creative product can only be identified and understood within the context of a larger whole, then we must also understand the larger whole of which it is a part. The heart cannot be understood, its function cannot be explained out of the context of the body and the other major organs within the body. We can understand the heart's function only when we see it in context, within the total scheme of things. When we remove a product from its social context, we only can see its direct perceptual manifestations but we cannot truly understand the meaning or functions of those manifestations unless we know the relationship they have to environment in which they exist. Thus we are like blind men describing an elephant. We can experience the separate parts but we may mistake the part for the whole.

Now if we cannot truly identify or understand the creative product outside of the larger social context, then we have the enormous task of trying to understand the larger social context. This causes us difficulties because our problem tends to become circular. We move from the product to the society and back to the product again always realizing that by removing a part from a whole we change the character of both part and whole. But what alternative is there? To deal with the total social milieu in relation to a creative product is a gargantuan task that no man is equipped to tackle. We deal with the single product but must also realize

that we may distort reality when we do this. But this is the nature of scientific investigation; every man may take a piece and try to create new pieces and new syntheses.

Since, as educators, we do not have the skills or background to cope with the total social context, let us deal with the social context we do have the skills and background to know, the school and school children. Admittedly this background is limited, but since this is the area that we know best let us use it as one portion of the social context, always remembering that what we conceive to be creative through our efforts at identifying creative products may very well be somewhat biased and distorted. It is better, however, to recognize limitations and proceed in spite of them than to wait until "all the information is in" before beginning to act. All the information can never be in, our dynamic world is constantly changing and each educator, scientist, and citizen must blaze his own frontier. Each generation struggles with problems that never before existed.

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THE CREATIVITY-PERSONALITY CONTINUUM BASED ON SPONTANEITY AND DELIBERATENESS IN ART

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Introduction

This study was undertaken to arrive at an internally consistent battery of measures which might lead eventually to the development of a test of creative intelligence. The art area, because creativity is its main concern, seemed the place to begin, with the objective of working from this starting point to a discipline-free group of measures. A subordinate goal of importance was to test some hypotheses made on the basis of some small pilot studies concerning the value of dividing students into spontaneous and deliberate categories as a means of increasing the correlates obtained in the art area with measures of personality structure. It was hoped that if this could be achieved, a pre and post battery of tests could then be formed for use in methods studies which would help to determine the extent to which creative learning was occurring in the classroom in art at both the high school and college levels. It was further hoped to isolate those people at these levels who would be the most creative as teachers of art. These objectives have been achieved for the most part through this study and we now hope to extend these findings in methods studies in various areas so as to make further progress toward the development of a more discipline-free battery of tests.

PROBLEM AND BACKGROUND

Problem—To isolate and synthesize the various creativity-personality characteristics of students grouped in accordance with their spontaneity and deliberateness in art.

Background—Past studies (9) done by the author and Dr. John Michael (24) tended to mix spontaneous and deliberate types of art works into one large group and grade them in three major categories: high, middle, low. In some small exploratory studies, designed to give greater depth to these initial studies; evidence began to accumulate which suggested that essentially aesthetic evaluations of this sort were in some ways self-contradictory. For instance, students who were given high aesthetic ratings worked

in both a deliberate and spontaneous manner. Some of these students appeared to think and work in a highly flexible, originative, and dynamic manner while others who were rated high aesthetically appeared to think and work by very deliberate, preconceived, step by step procedures. These same differences in orientation to the creative process and product were apparent in the students whose work had received low ratings. From this evidence the decision was made to divide these spontaneous and deliberate students into separate groups, rating their works within these groups from high to low so as to determine the extent to which they were different from the point of view of various creativity-personality attributes. A battery of measures was then developed for this purpose. It is referred to in this study by its initials C.A.T.—the Creativity Attributes Tests. The C.A.T. included measures which fall into nine different areas of testing and one reference measure—intelligence.

The criterion measure was termed the G.A.S.—the Gestalt Art Scale. This was, first of all, a visual scale which divided the spontaneous students from the deliberate students and further subdivided the works of each into two categories, high or low. This scale was composed of seven representative pictures, each representing one point in advancement in quality from an organizational and design viewpoint. This constituted a scale for aesthetic quality. In an effort to gain an understanding of the total or gestalt judgment analytical criteria were also used to distinguish the spontaneous works from the deliberate ones and others were employed which related to the judgments of aesthetic quality with respect to organization and design considerations. These criteria judgments did correspond very closely with those made by the visual scales according to the gestalt judgments.

DEFINITIONS OF SPONTANEITY AND DELIBERATENESS IN ART

The following definitions of *spontaneity* and *deliberateness* were employed for the use and training of the judges in this study.

Dichotomous Spontaneous-Deliberate Criteria
For Gestalt Judgments

Spontaneous Handling is defined in terms of freedom or ease

in movement in the use of materials and rendering of forms. It is the opposite of deliberateness. It is essentially fluid or unpremeditated art. It increases with speed and variety of movement, and with decisiveness of statement. It may often be identified by the variety of strokes, some of which may be very sensitive or delicate, some, vigorous and bold. It always contributes texture to the work. It reveals through this variety of movements the pattern of the creative process.

Deliberate Handling is a judgment of the stiffness of the handling of the total work—of the placement and treatment of the material. It is associated with a high degree of rigidity in these respects; however, the name *deliberate* seems preferable here because of the negative connotations associated with rigidity. At the higher levels in this group, the work does appear to be more deliberate in the classical sense rather than simply rigid.

For Identification of the Attributes of the Deliberate-Spontaneous Approaches

Deliberate Handling		*Spontaneous Handling*
Sharp or Clean Contours	Versus	Blurred or Rough Contours
Static or Rigid Handling	Versus	Active or Dynamic Handling
Redefined or Polished Surfaces	Versus	Bold or Rugged Surfaces
Tight or Restricted Forms	Versus	Loose and Free Forms
Repetition in use of Details	Versus	Variety in the Use of Details
Rigidity in Treatment of the Whole	Versus	Flexibility in the Treatment of the Whole
Full Coverage of the Paper Surface	Versus	Functional use of the White of the Paper

THE POPULATION

The population for this study was taken from introductory art classes composed largely of freshmen and sophomores at Central

Michigan University and 9th and 10th grade high school students in Finneytown, Ohio under the supervision of Dr. John Michael. These original populations were then divided into the Spontaneous and Deliberate groups and randomly assigned to group categories in equal number. There were 44 college students, 22 spontaneous and 22 deliberate. These students were then subdivided into high and low subgroups. There were thus 11 in each of the four groupings on the college level, and 9 in each of the four groupings on the high school level.

ART JUDGMENTS

First works representative of the students better art products were selected by a group of independent judges so as to reduce the number of pictures which would be involved in the final judgment. Six independent judges then rated these works for spontaneity and deliberateness and also for aesthetic quality. The judge agreement as to placement in either the spontaneous or deliberate group was well above .90. In fact, only in one instance out of about every 27 judgments, or 18 times out of the total of the 480 judgments required, was there a difference between these six judges concerning whether the work should be rated as spontaneous or deliberate. Though the reliability was above .90 it was more difficult for the judges to determine whether to place these students in the high and low subcategories. Judge disagreement increased to one on every ten judgments or to 48 out of the total 480 required evaluations. It is easier then to distinguish between these groups than within them. The aesthetic judgment was reliable at the .80 level which is still very high but less sharp than either of the preceding judgments as the finer discriminations brought in small but more frequent differences between the judges. Although a 7-point scale was used, four place distinction appears about as refined as is possible from the aesthetic viewpoint, at least that is about all we have been getting as there is a consistent difference of one place between every two judges. This tends to collapse a 7-point scale into approximately 4 places, but this is still adequate for dividing the deliberate and spontaneous groups each into a high and low subgroup.

PROCESS ORIENTATION MEASURES

Two measures of process orientation were employed. One was of an objective nature and the other was derived by evaluating the written statements made by the students concerning their thoughts and feelings during the working process in accordance with well defined categories. The objective paper-pencil test was referred to as the P.I.T., the Process Involvement Test. While scoring by the old key did show a significant relationship to the spontaneous-deliberate continuum, the item analysis made according to "t" tests of differences between proportions revealed in detail 104 significant differences, 53 of which were at the .01 level of significance, concerning how these various groups think and feel as they work upon their art products.

In brief* these self descriptions reveal the spontaneous highs as conceiving of themselves as often "distinctive", "self-confident", "involved", "uninhibited", "loose", and "versatile" during the creative process and as seldom "meek" or "cautious" as compared with any of the other groups.

The Spontaneous Lows appear to consider themselves more erratic in character and this is borne out by other findings, also. They often feel "aloof", "blustery", "noisy", "relaxed", "self-confident", "egotistical", and seldom do they consider themselves "dependable", "intelligent", or as "quitting".

Both these spontaneous groups reveal an active or dynamic approach to their work. By comparison the Deliberate Highs consider themselves often to be "clever", "conservative", "moderate", "natural", "pleasant", "peaceable", "practical", "calm", "clear-thinking", "fault finding", "fussy", "mannerly", "mild", "modest", "organized", and "painstaking" and seldom do they consider themselves to be "hard-headed", "humorous", "independent", "insightful", "progressive", or "unconventional", in comparison to all the other groups.

The Deliberate Lows considered themselves to be often "awkward", "coarse", "conservative", "formal", "restless", "conventional", "painstaking", "simple", and "weak", and "worrying" and

*A more detailed and complete index of these differences appears in a book by the author called "Progress in Creative Learning" published by the Central Michigan University Press, Mt. Pleasant, Michigan, 1960.

seldom "complicated", "conceited", "demanding", "outgoing", "sincere", "thoughtful", "enthusiastic", "individualistic", "insightful", "stubborn", or "tough".

Both these deliberate groups appear to be very conservative, and formal in their manner of work, and the low group's members consider themselves to be more "awkward" and "weak". These groups then understand that they do not have an "individualistic" and "independent" approach to their work in art.

These same distinctions were further clarified and sharpened by the process orientation test—the P.O.T. The P.O.T. proved to correlate very highly with a variety of other measures which are to be discussed. These high correlations have resulted in a new version of this measure in a paper-pencil test which can be objectively scored. It is hoped that similar significant correlations may be obtained in future studies with this instrument. However, the criteria with which these distinctions were made is of some real theoretical importance in terms of the characterization of these groups. The descriptions in it of these two groups' differing approaches to the creative process should be considered confirmed by the .79 correlation obtained with the spontaneous-deliberate continuum. The distinctions made are evidently significant and accurate ones.

The Judgments Employing the Process Orientation Criteria

The Spontaneous Group are process oriented and their statements reveal a strong interest in motion concerning their responses to the media and the subject matter. Their statements reveal a high activity level. They are more likely to start without an idea or to change their initial concept or evolve one during the working process. They have a positive response to mistakes and tend to integrate them into expressive purposes. They frequently have an emotional or expressive purpose in mind in contrast to a specific pictorial objective. Their method of work is either by trial and error or by synthesis in which all aspects of the work—media, subject matter, and process—are considered simultaneously with respect to their effect upon the whole. The general impression given by their descriptions of themselves during the working process is one of flexibility, freedom, and personal involvement.

The Deliberate Group are more product oriented, and they have specific pictorial objectives in mind which tend to be static in character rather than dynamic. Their method of work is through an analytical procedure which is step by step—one thing at a time. They tend to think in a very deliberate manner and frequently tire during the working process as the result of tedious and "painstaking" tasks they set for themselves because their methods of work are highly repetitious. They have a fear of mistakes since their preconceptions do not allow for revising their work so as to include them. Their pictorial objectives are more technical than expressive; however, at the higher levels there is a concern about the depiction of a pre-conceived mood which is reflective of some personal experience. Satisfaction within the deliberate group results in general from the degree of their technical success in achieving their preconceived goals. Frequently even at the higher levels, they experience extreme frustration concerning the technical objectives which they fail to achieve. A strong desire for academic organization and craftsmanship is evident in their patterns of responses.

The abstract and concrete attitudes which Goldstein and Scheerer (17) refer to are apparently very closely related to those tapped here. Note the similarity in their criteria, for abstraction and those used to define the Spontaneous students' attitudes during the creative process.(17)

"1. To account for acts to oneself; to verbalize the account.
2. To shift reflectively from one aspect of the situation to another.
3. To hold in mind simultaneously various aspects.
4. To grasp the essential of a given whole; to break up a given whole into parts, to isolate and to synthesize them.
5. To abstract common properties reflectively; to form hierarchic concepts.
6. To plan ahead ideationally; to assume an attitude towards the 'mere possible' and to think or perform symbolically." (17)

They define the concrete orientation as being "realistic" and their discussion suggests that they conceive of this as stereotyped and preconceived inflexible patterns of response.

They consider these two modes of behavior to be almost dichotomous in character and the findings in this study would tend to confirm their assertions that:

"The abstract and the concrete attitudes are not acquired mental

sets or habits of an individual, or special isolable aptitudes, such as memory, attention, etc. They are rather *capacity levels of the total personality*. Each one furnishes the basis for all performances pertaining to a specific plane of activity. In other words, each attitude constitutes one definite behavioral range which involves a number of performances and responses." (17)

Two perceptual types of performance have an important bearing upon the definition of the various traits which are reflective of this attitude, and both suggest that what is being tapped is capacity levels of the total personality as these tests are related to differences in the pattern of the perceptual orientations of these students.

PERCEPTUAL TESTS WITH PROCESS ORIENTATION IMPLICATIONS

The first of these tests is the O.A.T., "The Object Assembly Test" on the Wechsler measure of Adult Intelligence. This test was the only intelligence factor to correlate significantly with the spontaneous-deliberate continuum. This correlation is .30 which is significant at the .05 level. It is also significantly related to the Process Orientation Test with a correlation of .40, and also significantly to the P.I.T. at the .05 level. Wechsler's discussion of the characteristics and value of the Object Assembly Test are very informative as an explanation of this relationship. This test he notes, "tells you something about the thinking and working habits of the subjects . . ." "The subjects' approach to the task may in fact be one of several kinds. The first is that of an immediate reaction of the whole, accompanied by a critical understanding of the relation of the individual part." (26) The spontaneous high, the top scorers on this test, performed in this manner. He notes:

> "A second type of response which is that of a rapid recognition of the whole with an imperfect understanding of the relations between the parts." (26)

In general the deliberate highs tend to respond in this manner. They had the next highest scores on this test. He continues:

> "Still a third type of response is one which after a certain amount of trial and error manifestations leads to a sudden though often belated appreciation of the figure." (26)

The spontaneous lows whose scores were average but third in order tend to respond frequently in this manner. The deliberate lows

had unusually poor scores on this test, much lower than the other groups. Wechsler makes some very interesting comments which tend to have a bearing on these low scores. In discussing the object assembly's relationship to other tests on his battery he says:

> "First, the point to be noted is that while the test correlates poorly with almost every other subtest, it does contribute something to the total score. Secondly, examination of the object assembly diagrams show that the low correlations it has with other tests are due primarily to the large deviations of a relatively small and seemingly special group of individuals." (26)

This "special group" appears in our study to be the deliberate lows, and accounts for the fact that our 30 correlations are not higher.

He also notes that the test:

> ". . . sometimes reveals the ability to work toward an unknown goal", adds ". . . it tells us something about one's mode of perception, the degree to which one relies on trial and error methods, and the manner in which one reacts to mistakes". (26)

He notes another fact of interest, namely, that the object assembly correlates least well with the memory span for digits—in which the subject is asked to repeat numbers backwards. The Digit Span had a —.24 (negative) correlation with the spontaneous deliberate continuum and possibly taps some kind of anxiety factor spontaneous people have with repetitive memory tasks.

The second test which also indicates that these differences are so basic as to be perceptual in character is derived from the Rorschach Ink Blot Test as revised by Stone (25) for group use. This test is a measure of the students' "Activity Potential". The test was called Rorschach Activity Test or the R.A.T. Because there were 26 factors on the original battery, it was not intercorrelated with the other measures because it appeared to give undue importance to this one test in relation to the other 68 tests being studied. However, an analysis was made of the differences in group performances on the test. Only one strong factor was found which appeared to be really significant and that was in the Activity Potential Test. On this measure there was very little difference between the high and low sub-groups—however, the spontaneous group as a whole scored in the .82 percentile, while the entire deliberate group was found to be at the .38 percentile. Division of

the score above and below the means for the test by "t" tests also indicated that this difference exceeded the .01 level of significance. According to the Rorschach rationale for determining the structure of the personality through relating this direct factor to other combination factors in which the spontaneous and deliberate groups made similar or identical sub-scores, this difference in their activity potential scores resulted in a marked increase in favor of the spontaneous group in "inductive" and "deductive reasoning", "aggressiveness", and "flexibility." Frank Barron's findings in his study of the "M" factor closely relate to those reported here. He states ". . . that subjects who displayed considerable readiness to give human movement responses were considered by staff psychologists to be more intelligent, inventive, introspective, contemplative, and the like." (7) It is important that he found this factor not to be correlated with measures of intelligence which is, also, borne out in this study and will be discussed in detail later.

It is interesting to note the type of item which accounts for this response. The blot is shown and the student asked which of the following items it suggests:

Blot #6

1. Dancer whirling rapidly
2. A fish opened up
3. Eggs

The correct answer is "the dancer", the other being static images. Others:

Blot #9

1. Wallpaper design
2. Clowns laughing
3. Violin

Here the answer is the clowns. On the same blot:

1. Candlestick
2. Lampshade
3. Rollicking gay ninety women.

Here the answer is "Rollicking gay ninety women."

There is a strong perceptual difference evident here in the way these two groups project themselves into the same visual references. This seems to stem from differences in their mode or

style of perception which suggests the existence of creative and possibly less creative modes or styles of perception which are reflections of strong differences in personality structure.

The differences in style of perception is further verified and defined in the appreciation area by the Beittel Appreciation Test—the B.A.T. (8) This measure scaled according to the original key correlated .43 at the .01 level of significance with the spontaneous deliberate continuum and with slightly lower significance on the high school level alone (.32) and at .38 level with the populations combined, which is well above the .01 level with a population of 80. This is principally a measure of openness to new forms of art experience. The item analysis made of it, however, clarifies its meaning in relationship to the spontaneous-deliberate continuum as fifty-two items out of the total of 150 were found to show significant differences between these groups and over 36 were at the .01 level. (Some of these were at the .001 level.) A new key was then made and tested against a population of 400 students who had been given the test and whose responses had been checked by the old key. In comparison with the old key the new scoring showed a more rectilinear distribution and three new and significant relationships were discovered that were not at all evident according to the old key. Most important, a relationship was found for the first time which was significant between the Beittel and the Kieselbach Measure of Aesthetic Perception. (22) More precisely, the categorization of students into a spontaneous and deliberate group by means of the new scoring scheme for Beittel's test allowed the scores on the Kieselbach measure to also differentiate significantly between these (the spontaneous and deliberate) groups. The contribution made in this regard is to show that this new scoring scheme adds greater sensitivity to this measure, which is encouraging because it tends to confirm our belief that the division of students into spontaneous and deliberate groups will add a new internal consistency to future research in the field of Art Education.

An analysis of the content of these items reveals that the deliberates appear to have a very low tolerance of difficult complex and dynamic visual images, while the spontaneous group appears to have an instinctive appreciation for them. The deliberates' orien-

tation is much more realistic and impersonal while the spontaneous student appears more inclined to respond imaginatively or project his feeling and thoughts in response to various visual stimuli in order to find some meaning or value in them. Again, we see a marked contrast in the extent to which one group are dynamic and the other static in the styles of their perception.

MEASURES OF PERSONALITY STRUCTURE

These findings are borne out by a marked difference in the personality structure of these students. The first group of these measures included Frank Barron's measure for complexity of outlook (2) which was used in the California study for Higher Education (21) and is described as follows:

> "The *Co* scale discriminates among persons perceiving and reacting to the complexity of the environment and those perceiving and reacting at a level of greater simplicity. This variation in orientation toward the environment appears to be functional in many areas of thinking and behavior. High scorers exhibit behavior, assessed chiefly by attitude inventories, which is described as independent, original, critical, liberal, energetic, somewhat unconventional, revealing artistic interests, and welcoming the new and the different. At the lower extreme, persons appear to be conforming, compliant, conservative, lacking curiosity, and ready to accept authority and tradition." (21)

The spontaneous group scored high, and the deliberate low, on this and all other personality measures. This measure correlates .54 with the spontaneous-deliberate continuum.

The second measure in this group is the one which the Center developed for "Estheticism". It is described thus:

> "In essence, an esthetic person seems to get his major satisfactions out of the 'artistic episodes of life', but he is more complex and diverse in his interests than might be implied from such a concise description. Scores obtained at the Center for many individuals and groups indicate that an esthetic person also has a very strong and seemingly genuine interest in intellectual matters and in the world of ideas, some of which is expressed in literary appreciation. Related to this are expressed interests in new developments in both art and music. This is accompanied by an attitude of experimentation toward the new and different, and in inclinations and attitudes of a nonauthoritarian, nonconforming nature."(2)

This measure correlated .45 with the spontaneous-deliberate

continuum and .54 with Beittel's measure of openness in art appreciation.

The third measure in this group was for originality. This measure was constructed by Gough and Barron using a composite of Guilford's tests. The definition and meaning of originality employed here by the Center staff is in line with some of Barron's theory:

> "He considered a 'disposition toward originality' and thought of this as a 'highly organized mode of responding' which is well-established or almost habitual in those being credited with original thinking. In Barron's selection of criterion groups, originality was measured as 'equivalent to the capacity for producing adaptive responses' which were realistic but which were also judged to be relatively unusual. On the basis of evidence obtained at the Institute of Personality Assessment and Research and at the Center, traits found to be associated with a high amount of originality include independence of judgment, freedom of expression, novelty of construction and insight, rejection of suppression, preference for complexity, verbal fluency, interest in ideational activity, and nonauthoritarianism." (21)

This measure correlates .47 with the spontaneous-deliberate continuum.

The fourth and final measure included in this first group was for theoretical orientation and derived from the Allport-Vernon-Lindsey study of values, which has been useful in discriminating between "motivational" patterns of thinking. Chief among the characteristics of the theoretical person seems to be a need to think independently, and to be inner-directed.

> "Both 'peripheral' validity procedures (51) and a cluster analysis of the items in the new scale support the picture of a theoretical person as a fairly systematic 'truth-seeker', as one who utilizes an intellectual, rational, critical and objective approach in his observations and reactions. The majority of the items in a final 40-item scale developed at the Center fall into the following categories, 8 to 10 items in each case: a) accepting intellectual challenges (seeking answers, examining ideas), b) scientific inclinations or interests, c) nonconforming and independent thinking. Smaller groups of items appear to emphasize religious or philosophical skepticism, social introversion combined with satisfaction with (or acceptance of) self, and breadth of interests." (21)

This measure correlated .54 with the spontaneous-deliberate continuum. Using combined scores drawn from these four meas-

ures as a single score the correlation went up to .65 which means they add some stability to each other. The intercorrelations between them ran from .61 to .74 which indicates they are highly interrelated. However, the interrelation found between them in general is no greater than that found with the spontaneous-deliberate continuum. These four measures all seem to refer to a kind of divergent ideational orientation and have been put for future use into a test battery which does retain their identity but is referred to as a "Divergent Ideational Test", the D.I.T. These tests all in one way or another appear to measure what Guilford calls a "divergent thinking orientation." Almost all these items are structured in such a way as to make "a distinction between thinking that converges upon one right answer and thinking that goes off in different directions. In the latter case, the divergence may be invited by the freedom from a high degree of structuring of a problem situation. It may also arise, or perhaps must arise, when there are several acceptable answers to the problem or when there are several successful routes to a goal, and when no route is known or when known routes do not lead to success. What we recognize as creative ability is most clearly representative of this type of success." (19) The spontaneous group as a whole, and particularly the high students, desire situations and tasks which will permit them to think in a divergent manner and the Deliberate student both high and low desire to avoid the uncertainties of creative problems.

It is important to point out that these divergent measures had a *zero* relationship—had no relationship whatever to the aesthetic continuum in which no weighting was given for spontaneity. This helps explain the low personality correlations we have gotten in the past when combining the deliberate and spontaneous groupings in aesthetic judgment as the deliberate highs' scores are very low on tests of personality-creativity, though their work is high in aesthetic quality.

The second group of tests of significance was also derived from the California Center for the Study of Higher Education. They are composed of measures which are largely related to social self-determination in regard to social and political attitudes rather than ideational considerations. These attitudes are essentially divergent or open-minded rather than dogmatic or conservative in char-

acter. This group of measures is then referred to as the Divergent Attitude Tests, the D.A.T.

The first of these four measures is that for *Liberalism*, developed by McCloskey (23) which in general measures a rejection of conservatism, or stated positively, represents a large domain designated as "political participation, awareness, and responsibility." It correlated .62 with the spontaneous-deliberate continuum. It is the highest non-authoritarianism correlate found in this study.

The second measure is that for *Social Maturity* (2) and is also a type of non-authoritarianism measure. In general, the socially-mature person is thought of as flexible, realistic, tolerant and undogmatic. "He is considered to be personally free without being dependent on roles or rituals for managing social relationships." This measure correlates .54 with the spontaneous-deliberate continuum.

The third measure in this battery is that for Developmental Status developed with Vassar students (21) and is similar in many ways to the social maturity measure in construction and is largely a measure of social tolerance. It correlates .47 with the spontaneous-deliberate continuum.

The fourth measure is also a non-authoritarianism measure known as the "Christie". (12) It correlates .38 with the Spontaneous-deliberate continuum.

These four measures combined into a single score correlate .59 with the spontaneous-deliberate continuum and intercorrelate .83 with the Divergent Ideational Tests, and similarly these divergent socials attitudes have no relationship—correlating .05 with the judgment of aesthetic quality.

Both the D.I.T. and D.A.T. appear to measure a complex factor in such a way as to reveal rather fully that the spontaneous students' ideational and attitudinal orientations may be thought of as essentially open or divergent in their pattern of responses and the deliberate students' as essentially closed or convergent in their orientation toward life in general.

ART TEACHER INTERESTS

An art teacher interest measure was also used which Croftchik (15) developed to determine the relationship of the art student's patterns of interest to those of long practicing art teachers. Its

use is of course to locate a very special group of students and to cut them off from other types. It does this with remarkable clarity. On the high school level 70 percent of the spontaneous highs had very high scores upon this test while not more than 20 percent of any other group scored above the mean. At the college level a continuum exists starting with 70 per cent high scores for the spontaneous highs. Apparently this group is apt to develop these interests at an early age and retain them. However, on the college level, some of the spontaneous lows and deliberate highs have begun to show such interest patterns as indicated by moderately high scores. Apparently those students who enjoy art from a creative viewpoint, but may lack skill in it, are beginning to develop art teacher interest patterns by the time they are college freshmen and sophomores as do those students who are highly skilled technically. The deliberate lows also scored very low on this measure at the college level, and they apparently fail to develop such interest patterns. In other words we have a mixture of these three types of people among our art teachers, though this information suggests we should have as a profession a good representation of spontaneous high students in art education. From a descriptive viewpoint we are informed by these findings that there is an early formation and some important similarities in the interest patterns of the spontaneous highs to those of art teachers generally.

MEASURES OF FAMILY STRUCTURE

These various differences appear to be attributable in part to the family structure characteristic of the students' home environment as measured by family-authority test (16)—the F.A.T. These findings are highly important in that they are also indicative of the kinds of environments that foster the formation of these different kinds of personality structures and so suggest the kinds of educational procedures which might alter them. Examination of the scores above and below the mean on the father authority measure show the spontaneous students (Chart 1) to come more frequently from permissive or mother dominated homes, while the deliberate students came most frequently from father dominant, authoritarian homes. This is indicated at the .01 level by "t" tests of proportion and is consistent with other findings.

The theory underlying this difference conceives of creativity

as being fostered by environments which require more personal decisions. In this respect the mother dominated home is one of divided authority in the sense that the father's withdrawal represents a difference in outlook, while in father dominated homes the mother's complete submission results in a very strong single authority figure. This is in part verified by three other findings. First, that the spontaneous students have moved more frequently within the same city, and have lived in a larger number of cities. Both types of change constitute factors which would require more cultural adaptation or might develop a less provincial viewpoint. Their families tend also to be in the higher income brackets which generally provide somewhat more varied social contacts within their homes. It is interesting that these homes tend, also, to be more permissive or less rigorous or set in specific routines—for instance, their church attendance is more varied and somewhat less frequent, about twice a month as compared with a faithful weekly church attendance by the more deliberate students. This is true for members of all faiths.

These various factors combined tend to give us some insight into the cluster of factors which might tend to encourage more spontaneous orientations toward life. These findings are essentially the contribution of Dr. Theodore Ferdinand (16) of Central Michigan University's Department of Sociology.

CHART 1

SIGNIFICANT FINDINGS CONCERNING FAMILY STRUCTURE

In Terms of Per Cent Above the Mean

N 20 (in each group)		
	SH	70%
	SL	70%
	TOTAL	70%
	DH	40%
	DL	40%
	TOTAL	40%

1. No difference at all between spontaneous highs and lows, in family structure in terms of "father authority".
2. Between the spontaneous and deliberate groups there is a signi-

ficant difference at the .01 level 70% versus 40% between these groups in percentage of high scores.

SPATIAL APTITUDES

A large battery of spatial aptitude tests was also included in this study. These measures were not significantly related to the spontaneous-deliberate continuum. However, when these same measures were looked at according to the aesthetic quality continuum without regard for spontaneity or deliberateness, this correlation becomes significant at the .01 level. In the case of the Thurstone Hidden Figure Test the correlation was .43. However, something very different happens to the personality creativity measures. They have a zero correlation—no relationship—to aesthetic quality, while they have, as has been pointed out, a .65, or a highly significant, relationship to the spontaneous-deliberate continuum. In other words, quality from an organizational and design viewpoint is primarily associated with spatial aptitudes rather than with creativity as it would seem to be defined by personality measures. This tends to make it very evident that consideration of design and organizational factors is simply not enough, or not sufficient in itself, from the point of view of the development of what appears to be a more creative personality structure. The educational implications here are clear. This difference also makes it apparent that the spontaneous deliberate continuum is really a personality creativity dimension. It has therefore been suggested that it be called the Personality Creativity Continuum based on spontaneity and deliberateness in art.

INTELLECTUAL ATTRIBUTES

The next factor is I.Q. Past studies of the author (11) and others have indicated I.Q. is not related to achievement in art. But because of the implications of this finding the author decided to make a more careful examination of various factors included in an intelligence test to creativity in art. Mr. Sealock, who is in charge of testing in the personnel department at Central Michigan University, therefore gave 44 Wechsler Intelligence Tests as his contribution to this study. This is of course an individual test, taking an hour and a half each to administer.

Again there was no relationship: —.08 for the total, —.08 for the verbal, —.04 for the visual performance score. The only factor relating significantly to the spontaneous-deliberate continuum was, as has been discussed, the Object Assembly Test. The findings on the high school level were the same, using the California Test of Mental Maturity, which also has a verbal, visual, and total score. The evidence is clear here and is important, also. Personality-Creativity operates on a relatively free or independent dimension which is very different in character from the "mental" which is associated at present with measures of intelligence. It is interesting that Frank Barron also notes this same difference in his recent studies of writers, painters, architects, and scientists who are highly successful in their fields today financially, grouped in essentially creative and non-creative categories.(4) His studies and this one tend to reinforce each other in a number of important respects because of the differences in the populations studied and contrasts in their major focus. Barron has of course made personality differences the investigative center of his researches into creativity while the springboard for this and past studies by the author has been the creative product and particularly the creative process. However, the findings are essentially the same and so suggest that regardless of the level of creative performance being investigated the major differences are in most respects similar in kind though not in quality. The important consideration in regard to these findings concerning the differences between intellectual and creativity-personality factors is that more perhaps can be done to alter creative capacities than intellectual ones. For instance, intelligence does not appear to vary greatly with differences of an educational and environmental type, but creativity is apparently strongly affected by such differences. This is a very hopeful fact and one which needs more study. While people may not be able to greatly alter the degree of their intelligence, there is evidence to suggest that they can change the degree of their creativity.

SUMMARY OF GROUP CHARACTERISTICS ISOLATED BY MEASUREMENT

I. SPONTANEOUS GROUPS

Spontaneous Highs—Most Creative Students

1. *Art work* highest in spontaneous handling and highest organizational factors—design
2. *Attitudes during working process* highest in flexibility and involvement. Trial and error synthetic method of work.
3. *Highest object assembly*—trial and error part—whole manipulative problems.
4. *Aesthetic orientation* highest in openness and positive toward new forms of art experience.
5. *Highest in motion identification*—activity potential.
6. *Personality structure*, high in originality, complexity, estheticism, theoretical orientation—high divergent ideational factors. High in social maturity, development status, non-authoritarianism, liberalism—high social self—determination factor.
7. *Family structure*, permissive or mother dominated.
8. *Art teacher interest*—highest in these interest patterns.
9. *Spatial aptitudes*—highest in spatial aptitudes—two and three dimensional status, asymmetrical diagrams.
10. *I.Q. average*—consistent with other groups, verbal, visual and total.

Spontaneous Lows—Creative but Limited Students

1. *Art works high in spontaneity*—moderate to low in organizational abilities—design considerations.
2. *Attitudes during working process* moderately high in flexibility and involvement. Trial and error approach to work, limited in controls, self-expression, feeling orientation.
3. *Average in object assembly*—Trial and error part—whole manipulative problems.
4. *Aesthetic orientation* moderately open and positive toward new forms of expression—highly subjective symbolic projection, emotional in tone.
5. *High in motion identification*—activity potential.
6. *Personality structure*—high in spontaneous flexibility and social self determination factors—note above for sub-factors.
7. *Family structure*, permissive or mother dominated.
8. *Art teacher interests* moderate at college level to low at high school level. to low at high school level.
9. *Spatial aptitudes* extremely low, weaker than all other groups—two and three dimensional static, symmetrical diagrams.
10. *I.Q. Average*—consistent with other groups.

II. DELIBERATE GROUPS

Deliberate Highs—non-creative but very capable students.

1. *Art works high* in deliberateness or rigidity in handling, low in spontaneity, high in organizational design.
2. *Attitudes during working process*, high interests in skills and techniques, associated with highly self-critical attitudes and strong preconceptions. Very deliberate step by step procedures evident in their methods of work.
3. *Average in Object Assembly*—trial and error part—whole manipulative problems.
4. *Aesthetic orientation* limited and negative—somewhat literal.

5. *Low in motion identification*—activity potential.
6. *Personality structure* low in divergent ideational factors, low in social self-determination.
7. *Family structure*—high in father dominance or authority.
8. *Art teacher interests*—moderate at college level to low at the high school level.
9. *Spatial aptitudes*—moderately high though not as high as spontaneous high students.
10. *I.Q. average*—consistent with other groups.

Deliberate Lows—non-creative limited students.

1. *Art works* very deliberate or rigid in handling—stereotyped, low in organizational factors—design.
2. *Attitudes during working process* very negative, inflexible, and lacking in involvement. Preconceived extremely deliberate step by step approach.
3. *Lowest in object assembly*—trial and error part—whole manipulative problems.
4. *Aesthetic orientation* extremely limited and negative—closed to new forms of expression—very literal.
5. *Low in motion identification*—activity potential.
6. *Personality structure* low in divergent ideational factors and social self-determination.
7. *Family structure* high in father dominance or authority.
8. *Art teacher interest* patterns very low at both high school and college levels.
9. *Spatial aptitudes* slightly below average.
10. *Average I.Q.*—consistent with other groups.

CONCLUSIONS

Several studies are now under way to determine the value of various educational methods for these various groups. However, perhaps the main value of this rationale lies in that it sharpens our concepts of the nature of our educational problems because the creativity-personality problems of the individual student become our main reference of concern. Special attention needs to be given to the problems of the deliberate students and the findings concerning them. It is of particular importance to note that the deliberate students are restricted in large part by highly fixed or rigid standards established for them by authority figures. They need most to learn to develop new and relative standards if they are to learn to be flexible—at least the findings made here suggest this. Our present analytical teaching methods of correcting and suggesting possible right directions to them may be insufficient or even damaging. What is perhaps needed is a new more synthetic approach to education as standard forming, an approach which places emphasis on divergent tasks, but more than this provides

continual exercise in the revision and discovery of new standards relative to the various kinds of projects undertaken. What is perhaps needed today is a synthetic-standard forming discipline-free approach to education through which the student can gain some greater depth of experience and understanding of himself and his problems as a potential creative person. The immediate value of this approach has been observed by a colleague* to be that perhaps for the first time it may be possible to teach something more than our students might ordinarily learn merely by virtue of what they are as people. Now perhaps we can teach them those things which they would not ordinarily discover themselves. This perhaps is in itself a worthwhile advance from an educational viewpoint.

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THE WAY OF ART FOR THE GIFTED CHILD

JOHN H. WADDELL

Giftedness does not desert the child when he leaves the verbal area. Beyond a doubt the gifted child has more choices of direction, sees greater vistas, comprehends more, and has a higher order of sensitivities in general. These very distinct advantages, while most positive in nature, can act in a negative way unless the child has the opportunity to comprehend and adjust to them. The tasks that the child sets for himself when he discovers that there seems to be little awareness or appreciation of his uniqueness are almost always of a lower order than his potential would indicate. A sensitive and correspondingly gifted adult can bring much into being for the child. While the gifted child often learns easily and quickly, it is in the realm of abstract and speculative thought in which his development is most neglected at present.

The Arts, since they deal with abstraction of varied degree and direction, can be a prime factor in the development of analysis-skepticism-inquisitiveness and so forth. The Arts by their very nature have an increasing depth, eventually to the imponderable life itself.

The Visual Arts can form a most effective bridge through periods in life when the acquisition of subject matter seemingly necessary to achievement in most fields can be tedious and destructive unless tempered with the high level abstract thought of which the gifted child is capable. Art is not a subject matter field. Art is a field of the Intellect and of the Emotions, of the Intuitive and of the Sensate. Beyond this, when art reaches that point when it can be called creative, it is the expression of the life of man. It is philosophy. It is depth. The argument that many gifted have survived without art or that all are not artists is neither here nor there. Proclivity for a way of working of a particular culture was associated with personality syndrome rather than inherent ability. Indeed, the really gifted one can be undiscovered in a rigid social and aesthetic order. As Brewster Ghiselin says,

> "Invention is easier when we learn willingly to submit to necessity, or even, like James, to find real advantage in it. One can save one-

> self much trouble by recognizing the limitations of the will in creation. It is interesting to see how often it is repudiated as a primary instrument in much of the creative process by all kinds of artists and thinkers from Picasso to John Dewey. . . . "[1]

Range and extreme variety of direction mark the expression of intellectually gifted children. Deviation is the rule rather than the exception. Naturally bored by routine, their greater mental energies drive them to outskirts usually not within the grasp of their teachers and occasionally in a direction unique enough as to provoke, some would say "ask for", disapproval.

The way of the gifted child in art must take into account this factor in such a way as to motivate the greatest deviation and to enable the child to feel at home in this deviation. This can be done in the visual arts by encouraging (developing) the viewpoint in the gifted child that, in art, the positive direction is toward the unique form. In social terms certain differences in society are not condoned. In terms of the visual arts the greatest value will accrue to society when variations are accepted and encouraged. In *Moses*, Martin Buber states,

> "The soul must face certain dangers in the spheres of the gods; and in order to do so successfully, it is armed with magic. But in the history of Mankind there are two differing kinds of magic to be found . . . there is a magic of spontaneity where a person goes out to meet the chaotic element with his full collected being, and overpowers it by doing what is unforeseen and unforeseeable to himself. . . . On the other hand there is a magic of formula; fixed formulas, fixed rhythms, fixed gestures are all prepared and nothing more is necessary than their correct application. This second kind can be described as technical magic. . . . "[2]

Obviously it is the first magic that must be fostered in the gifted. The second kind of magic is already overly practiced.

Two basically negative paths in school are often clearly destructive to the gifted child. One based upon gratifying the adult, teacher, and basking in his praises, recognition, etc.; the other, tentative questioning and rejection of the adult, teacher. In either case the child functions below his norm and with a relative minimum of effort satisfies cravings for acceptance or rejection. This craving could be described as a desire for a more intense reaction than our society usually provides.

While this desire is a reflection of the lack of close relation-

ships in our culture, and it points the way to a third positive path through the visual arts, this path is as varied as life itself, and it is not deeply trod as are the paths of science. As Rabindranath Tagore said,

> "Science is a passenger in a railway train of generalization; there reasoning minds from all directions come to make their journey together in a similar conveyance. Art is a solitary pedestrian who walks alone among the multiple continually assimilating various experiences unclassifiable and uncatalogued. . . . Man's life has time-honored institutions which are its organized habits. When these act as enclosures, then the result may be perfect, like a beehive of wonderful precision of form, but unsuitable for the mind which has unlimited possibilities of progress."[3]

I differ with those who contend that art education should be the same for all, vary only in degree of intensity and not in kind. There is little similarity in approaching I.Q. 30, mentally ill, and exceptionally gifted in the arts. However, there is one, basic, common, binding similarity that is found in the approach to all three groups: the necessity of expression. The need for separate consideration for the extremely bright child has been made obvious. Paul F. Brandwein says:

> "Anyone who travels about the country, visiting schools and speaking to teachers on the tactics and strategy of modern science teaching, finds wide acceptance of the notion that gifted boys and girls can be left to their own educational devices, more or less. It is as if to say that the vast educational appetite of the gifted boy or girl can feed itself. Somehow equality of opportunity for all has been equated with identity of opportunity for all.
>
> Nothing could be more contradictory to one of the major concepts of our American educational and political philosophy. The development of each and every individual is at once the basis of our effort as well as our goal."[4]

Giftedness does not desert the child when he leaves the verbal area —on the contrary, visual perception in all aspects, physiological and psychological, is most basic. "Seeing beneath the surface" is a mental process which to some degree abstracts from the ever-changing surface itself.

The 19th century heritage of empiricism, coupled with an exaggerated respect for the authority of the printed word, have made the vast majority of people (including teachers) visual incompetents. John E. Burchard of M.I.T. says:

". . . It seems to me that we have learned not to see. We are able to move without any real awareness from the airfield at Idlewild to the United Nations building on the East River. During the whole dismal passage, we have learned not to notice the shabby objurgations to buy, the disorder of the used car lots, the utter visual confusion in which most of our fellow citizens pass their entire lives.

It is possible to argue that this lack of visual sensitivity is merciful since it makes tolerable an environment which otherwise would be intolerable. I prefer to think of it the other way around. If our visual senses were not so dulled, perhaps we would really declare the confusion intolerable and begin to put it in order."[5]

It is impossible to determine *specific* giftedness at an early age. In fact, contrary to the myths of early discovery of artistic genius, one seldom sees giftedness of consequence emerging in art until adulthood and often rather late adulthood. The late Jackson Pollock who unlocked a new direction to the Western artist would now be unknown if he had died ten years earlier.[6]

Rembrandt's insight that the era of materialism held little for the artist is well illustrated in the change in the character of his work as he flowered in his later years.

The possibilities for expression are not developed to the point where they could be with our exceptionally gifted. Picture a room in a public school. It's called an art room—free flowing, flexible space, all kinds of multiple-purpose equipment, materials galore. Put a gifted child in this room without a teacher. Let him do what he wants to do. No avail. Materials and equipment are of secondary importance. A Korean visiting this country in 1954 said to me, "Oh, it's true. Many of our students go to school. But really, all a good instructor needs is a bare spot of earth and a stick." *The clue is the contact that a gifted child has with a gifted adult.* The child's ability to be expressive, to shed the mores, when the mores are not relevant, to "find" himself in visual expressions which have nothing to do with his comprehension of subject matter, depends upon his finding a prototype in existence: a similar self who by being reinforces his own self.

Art is not a subject matter field. Do not mistake me. I did not mean that we should not have equipment, materials, fluid, free-moving-multiple-purpose room. These are helpful. But, the important relationship, the one that is not fostered today, is the

relationship between the gifted child and the gifted adult. Where, how often, in the school does the gifted child find the gifted teacher—the *really* gifted child find the *really* gifted teacher? Thank goodness, it does happen! But in order for it to happen more often and for us to have a beautiful, unheard of, inventive culture, we must make it possible for members of society who are not teachers, to come into the school environment, and perhaps simply to pass through, but long enough to make contact with a child, so that he realizes that his is a uniqueness—but that there is an accepted similar one.

The next step in society, as far as creativeness is concerned, the development of the more complete human being, has to do with making possible the contact of prototypes, regardless of positioning on the earth, so that each can recognize the completeness of himself and the similarity of this self with some other existing being.

You know the loneliness of the person—
the separation from others nurtured on time

as self discovery and self evocation
not dependent upon conscious self discovery
drive one to hidden corners
in which there are no wall meetings.

Stepping through you've seen
the shadow of another
who twirls and smiles
to vanish in the smoke of the subconscious.

You've had that moment
food for going on
when the smoke clears and extra sensory perception
reveals the presence of a reactor:
seldom at the vortex of consciousness
a bright light in the mind's darkness
from outside the skull.

This is revelation—it is joyous—
it is love.
You know—it is gone before it is there.
Not a corporeal is.
These bright moments are the stars of course.

Sometimes we artists solidify a wisp
of subconscious smoke.
If we could stand with eyes looking out
from our work
we'd see the reactor's empathy emerge
upon the face's shady mirror
and know that our course is crossed—
A mingling of passing atmospheres
has caused a reaction.

We cannot share the mutual discovery
between another self and our once self
unless the reactor embraces us and tells.

Can we speak to each other?
For this is a lonely path we trail.[7]

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THE DEVELOPMENT OF PERSONALITY THROUGH ART APPRECIATION: A Vital Aspect of Education Through Art

HELEN CABOT MILES

Can anyone TEACH appreciation?

Ever since 1941, as the instructor in a secondary school course in Art Appreciation, I have been asked the question again and again and have asked it of myself. Out of these years of experience, which certainly held much of the quality of research, I can say very firmly NO. Attitudes and appreciations are more nearly caught than taught; but I must quickly add with equal firmness that one can provide conditions, outer and inner, in which any latent aptitude and sensitivity may unfold.

In this little duo, *outer and inner*, may lie the clue to the possibility of developing personality. The findings that are to be reported here, however, came as an unexpected concomitant to the attempted awakening of purely aesthetic insights. In the hope that a presentation of the findings may be of some value to other searchers and researchers, or may stimulate further work along similar lines, I shall try to telescope into brief form what seems now, in contemplative retrospect, to constitute the essence of those years of struggle, of fun, of soul-searching, of observation, analysis, and personal growth.

From the first, and increasingly, there have appeared evidences that students in the course (an elective major for junior and senior high school students) often emerged with marked changes in attitude, not only toward art, but toward life—toward other subjects, other people, and themselves; that they appeared *better integrated*,—to have undergone major *expansions of consciousness*, or, to put it into other terms, to have increased in *awareness*, not only in relation to beauty, the expected province of art, but also in many other areas and relationships—physical, emotional, mental, and spiritual.

"Marked" changes are here defined as changes noticeable enough to elicit spontaneous comment, again and again, not only

from the students themselves, both at the time and years later, but also from parents, from other teachers, and from counselors. They were evidently inner changes which were manifested overtly as changed behavior, sometimes as greater competence in other subject areas. Grateful comments have come back again and again from students in college or art school, and even from faculty members in these schools. The incidence has been frequent enough to exceed normal expectation.

Referring to this fact a year or so ago, an administrator suggested that it must be a matter of teacher-personality, and, as such, non-transferable. But flattering as the comment might be, one had to face the fact that the same personality operating through other course content yielded up no comparable results; for the year's program always included from two to four other subjects, occasionally academic, but more frequently concerned with creative arts. So evidently the WHAT is important, too, along with the HOW and the WHY.

Setting out to do a research, in connection with graduate work, in 1955, on "attitudes and appreciations" I found the psychological field woefully arid; but did take heart at discovering the suggestion made by Gordon Allport that studies in depth, experiments carried through a number of years rather than controlled experiments of shorter duration might yield helpful data. My experience, I felt, offered plenty of material for a study in depth, albeit an informal study, of the means whereby one moves from level to level in perception, hence, in appreciation, and so an attempt to formulate and to validate vague hunches began in dead earnest.

At a moment of discouragement, mid-1957, some beneficent Guardian Angel took a hand. Within a few weeks, two dynamic psychologists pioneering along the newer lines of positive orientation came upon the scene: A. H. Maslow of Brandeis, and Roberto Assagioli of Florence, Italy. Several of Maslow's papers and his book *Motivation and Personality** provided clues and sufficient assurance of firm psychological ground to encourage the preparation of a paper for the "Second International Camp for Psychosynthesis" held at Capolona (Arezzo) on "Aesthetic Sensitivity

*Harper, 1954

as a Means to the Expansion of Consciousness." It was well received by Dr. Assagioli and other participating psychologists and educators.*

Spurred on to greater efforts now, I tried to institute more methodical research methods, but soon developed a great sense of sympathy and even identification with the well-known centipede who, when he became self-conscious, couldn't think which foot to put down first! Statistics and I do not agree. The students and I both began to suffer—though even the ensuing agony had value as a learning experience and lent weight to the views now being expressed by some psychologists that there are areas where research is needed that do not lend themselves to the routine quantitative approach.

With no further apology, then, I propose to list here the basic assumptions that have finally emerged out of nebulousness, together with some of the implications they seem to hold for art educators. This will be followed by a brief report of the course content and variety of procedures (with full awareness of the virtual impossibility of trying to capture *livingness*, the flow, the subtle interplay of vital experience in words on a printed page). But perhaps any reader who, sensing the importance of the problem, has read thus far will continue and, keeping intuitive antennae alert, find in the following pages some thought that can become a part of his own equipment for ever more effective education through art.

BASIC ASSUMPTIONS (which I believe the work of an increasing number of psychologists is rapidly removing from the realm of hypothesis, though they may be open to challenge):

1. That one purpose in the educational process, one that can be served with great effectiveness by the arts, is to release the potential innate in every human being—a very different thing from transferring facts or opinions, as someone has aptly put it, from one bin into another.
2. That *changes in consciousness* must precede lasting changes in behavior.

*A few of Dr. Assagioli's writings, brief but significant, are available at no cost from the Psychosynthesis Research Foundation. Key pamphlets for the educator are listed in the accompanying bibliography.

3. That real learning takes place at unconscious levels.

The teacher, then, must become increasingly *conscious* of the many ways in which the UNconscious works—in himself (difficult as this may be), in his pupils, in their relationship with each other and the environment. This implies psychological study—but more than that: experience leading to self-insights, preferably under guidance. (Opportunities for group work in this line are becoming ever more available—and even as brief and compact an experience as one may find in an Institute of General Semantics or a session of group dynamics may blast one out of a rut on to a new plateau of awareness.)

4. That consciousness unfolds in response to three factors: strong inner urge (such as we find in the seed, Bergson's *élan vital*); environment, which can be made to be a facilitating factor; the removal (by a variety of processes) of obstacles.

The teacher, then, must observe and evaluate constantly in order to determine what combinations provide the maximum facilitation, which throw up the worst blocks. Certain physical conditions are helpful—even necessary; but without consideration of a psycho-spiritual component—of which we have to become increasingly conscious ourselves—they may have relatively slight effect.

5. That we learn not only through the brain (which is not synonymous with the mind) but also through the physical body, the emotions, and the intuitions; and that none of these levels can be overlooked if growth is to proceed harmoniously, if the processes of integration which are a part of normal growth are to take place.

Classroom procedures must be sufficiently varied to provide for action and interaction at these several levels. We must remember, too, that action is not only physical, that periods of quiet, of "gestation", providing for *inner* action, may be as essential as those of busy experimentation with tools and techniques; that methods of physical, emotional and mental relaxation, of listening with the "inner ear" may be considered as tools in the development of the Higher Self.

6. That the processes by which learning takes place vary to some extent in relation to various psychological types (about which psychology still has much research to do, but it seems to be underway).

Teachers and psychologists might help each other here, as new knowledge comes to light, new researches yield significant data. In the meantime, careful observation and analysis can evolve

workable "rules of thumb." Introversion and extraversion; verbal and non-verbal types; scientific, artistic, or practical modes of thinking and working—these are only a few suggestive possibilities; and in view of the complexity of our structure, there may never be a possibility of precision in categorizing. But it is fruitful to attempt to relate teaching techniques to type, and it *can* be done with classes of 20 or 25.

7. That in addition to lower drives, instincts, motivations, we all posses to some degree (and some to a considerable degree) higher drives and urges (toward beauty and its expression, towards a philosophy of life, a sense of meaning, towards humanitarian and heroic action, etc.); and the frustration of these can cause just as much trouble as frustration of the lower "Freudian" impulses (which, of course, must not be forgotten).*

This seems to imply that not only physical beauty, but also the beauty of truth and goodness,—philosophical and moral concepts—need to be considered; and that an awareness of spiritual values must be *expressed* if it is to evoke a "resonance" in often-eager students who, otherwise, are led to believe that these things do not matter.

8. That while we grope towards effective means of making use of the fact. we can depend also upon the existence of a "deep center" or "Higher Self" which ever tends to coordinate the sub-selves that are usually waging combat with each other.

Out of the basic assumptions grow the following *hypotheses:*

1. If we accept these assumptions as reasonable, the more seriously and successfully we consider and act upon such implications as have been suggested, the more effectively we will educate in the e-duco sense of releasing innate potential.
2. Releasing of inner potential is educating for creativity; therefore, as we work along the lines suggested here, we shall be helping to swell the number of free, creative beings.

*We art educators have already played an important role here with our emphasis on free expression, which is cathartic. But it has often stopped short of *synthesis* because it has dealt largely with the lower unconscious, utilizing the higher part, the *super*-conscious only incidentally or accidentally. See "Art and the Superconscious" in *Art Education* for October, 1960.

3. In view of the fact that the new, positively-oriented psychology is holistic, or synthetic, it is probable that the acceptance of *all* the assumptions, and an application to some extent of *all* the implications will be necessary to any high degree of effectiveness. To work upon one or two premises alone simply will not do!

4. The key to facilitating creative growth in others is to pursue unceasingly the ways and means of continuing in the expansion of our own consciousness. So long as one keeps thinking and growing and approaches a class in the spirit of mutual search for *meanings* and *relationships* and the simple but profound truths that underlie and *give coherence* to life's complexity, this consciousness of possible coherence will by some catalytic process evoke a resonance and help the powerful unconscious resources of others to work towards coherence.

Commitment to these beliefs is not for the faint-hearted. It does, indeed, mean commitment to a lifetime program of search without and search within, a lifetime study of breadth and depth—and depth, in some paradoxical way, means also height. If it sounds not only profound (which it is) but also grandiose and presumptuous, this may be true! Be it set down here for the record that never for a moment must any of us (including—or especially—the author) forget that *making verbal formulations* and *living the formulations* are, as they say, horses of two different colors. Sufficient "success" to encourage further research does not mean that the "success" (such a tricky word) is relatively so very great.

If the reader cares to go on, however, he may begin to feel very much at home, even to say to himself, "Oh, I know this. I already DO that." And very probably he does. Still, we artists who depend so largely upon our intuitions and our nonverbal perceptions are now being forced (beneficently, no doubt) to bring into *consciousness* what has hitherto floated elusively in unconscious regions. Can this not be construed as a legitimate part of the task of the artist?

And now for the *course content* through which one may test the hypotheses. One part of it revolved around the elements of

design: line, area, form (in space), color, texture, light (and dark); for it became ever clearer that there is a direct relationship between levels of awareness and facility in the nonverbal languages (as the "language of line"). Along with the elements go, perforce, the laws and principles of design, as effective guides to the use of the elements. Along with balance, rhythm, unity-with-diversity, and harmony go the relation of form to function, and the use of materials with integrity.*

Since it aimed to awaken an appreciation of the visual arts in the 20th century world, the content then had to include:

1) an introduction to the many art fields (not only fine arts)

2) an introduction to at least some of the great art developments and great artists of the past, in order to give an idea of heritage and relationships—Orient as well as Occident

3) the search for criteria by which we can presume to call a work of art "great" and by which we can then begin to evaluate from several points of view anything from a painting to a necklace—past, present, or future. (Please note the word *search*. One must avoid dogma, and constantly seek out *principles*. This is the safeguard if one is to avoid imposing his own personal predilections.)

4)enough personal experience with materials, tools and techniques to give some first-hand knowledge of factors entering into the creative process, and of the close relationship between inner states of being and outer manifestation.

Since it aimed to suggest a vital relationship between art and life at any time and place, it had to provide for:

1) experiences and concepts close to the student's present level (the levels, as in any elective course in a public school, ran the gamut).

2) some idea of the other major approaches to life, i.e., the scientific and the philosophical (use of the rational mind)—these two *ob*jective; the religious, along with the artistic, *sub*jective. Also

*The sense in which these laws and principles become equally valid as Laws and Principles of a possible Design of Life has been expanded in "Design for Tomorrow" which appeared in the December, '58 issue of ART EDUCATION.

an idea of their similarities and contrasts, and the possibility of ultimate convergence, or synthesis as with a Leonardo, a Schweitzer, or an Einstein.

3) some idea of conditioning factors that differentiate, e.g., Medieval and Renaissance man, the Egyptian, the Roman, the Chinese, and so on, together with the quality of underlying *humanity* that binds us all together. Introduction to the cyclic concept of history (Spengler, Toynbee, Sorokin) is helpful here. Art students who have been allergic to history courses often find that this "makes sense"—perhaps because it utilizes the principle of rhythm with which they are familiar.

4) some idea of the existence of subjective and objective aspects of the life of every human, and the relation of alternation of these modes to the esthetic principle of rhythm. *Experience* with this alternation. (The relationship of this polarity in ourselves to the historical and sociological polarity as pointed out, for instance, by Sorokin, may or may not be spelled out explicitly. Perceptive students "discover" these connections, given a hint, as well as other evidences of the maxim "in the macrocosm as in the microcosm"; it is better so).

Thus, the content roamed far beyond the strict confines of "art" into history, the physical sciences, sociology, psychology, philosophy, and comparative religions! This in an elective group with I.Q.'s running above 90 in most cases. Known as a "hard course" however, it enjoyed a little selectivity on this basis, and it sometimes turned out that the students short on I.Q. were long on intuition and a kind of sensitivity that permitted them to outshine the "brains" on certain types of activity. When principles are stressed more than facts, as such, students branded as slow often grasp with astonishing sureness, and the shallow thinking of the mere memorizer comes into view. Abstract concepts can often be communicated to "non-verbal" students by means of diagrams and symbols; but one must not *expect* equal grasp. "Here," commented one of the slow-learners (highly gifted in human relations) "I can hold my head up and really *feel* like a human being." And another thoughtful girl said, "It is such a relief to discover that whatever one does or says here, it is not said to be *wrong!*"

Classroom procedures also ran a wide gamut, two classroom mottoes being "Never a dull minute," and "If you don't like what we're doing today, just be patient until tomorrow." We read and discussed; looked and discussed; evaluated silently, wrote and discussed; experimented with techniques and media . . . and evaluated. If a sense of "bogging down" seemed to indicate too much emphasis on the verbal, we could lay it all aside and have just plain fun for a bit; but verbal expression based on common experience is almost a *sine qua non* for the building of a sense of *meaning* (for which youth today clamors, if wordlessly) and of relationship, of bringing UNconsciousness into the realm of consciousness. This, I know, sounds like rank heresy to those who contend that the artist who becomes too conscious loses his "touch" and while there is a grain of truth in the contention, I can only say that the students who went from the course into art schools (and there were many) found their preparation more than adequate, and a help rather than a hindrance in their later art careers.

Sometimes the class worked as individuals, sometimes in groups; there was often a wide choice of specific procedure open within a prescribed framework.

Assignments might be for an hour, a day, or a month.

The opaque and kodachrome projectors were used frequently, a movie projector occasionally; but bulletin boards—lots of them—*regularly*. They were kept filled with the usual assortment of student work—sometimes selected, sometimes not, with reproductions, items of current interest and so on. But whatever their subject, they were always arranged carefully, with a variety of format; and they were changed at intervals of five to ten days. (Both important in view of unconscious functioning.) Opportunity for extended study of material for painting reproduction is far preferable, especially to certain types of student, to dependence upon the flash exposure of too many slides which, by producing anxiety, can frustrate. Besides, the posted material allowed for comparisons and the making of relationships (SO important) and often provided a takeoff point, planned or impromptu, for a class period.* Three

*For example, six or seven bulletin boards, each with representative examples of some "Master of Line" could be observed from these points of view: (1) predominant quality and direction of line of each, with according psychological and communicative effect (2) the "feel" of the work in relation to both national differences

dimensional material appeared, too. The atmosphere was informal (but not "laissez faire") to stimulate spontaneity; and the program was kept sufficiently flexible (within self-imposed limitations) to make impromptu discussions possible. These were sometimes more vital than more structured class periods; and because they caught the teacher unawares, they created healthy situations in which, upon occasion, no one knew the answers and all had to explore together. (I remember the amazed comment of one girl who said, "But when I ask YOU a question you ask ME another question. Why don't you tell me the answer?" And when I replied that the question she had raised seemed to me so profound I could scarcely assume the right to be at all sure of the answer, she said, "But most teachers give answers." A "facilitating condition" for the release of honest questions and comments is certainly the honesty of the teacher!)

Provocative quotations were always in view, often but not always obvious in their relationship to the visual arts, but always related to the greater art of living. Seldom mentioned, they had their effect. One sometimes heard the practice mentioned a year or two later, or glimpsed by chance a notebook with the entire year's collection neatly entered. Calculated repetition of a few key words and key concepts (rich in their implications for the art of living) also made an impact. Such simple things as "awareness" or "T.L.C." (tender loving care) or, in memory of dear Marya Werten, relevant to the whole important concept of design in terms of tools and materials, "Ask the needle what it wants to do." I recall here another student who said, in December, also with amazement, "I've just been realizing what an enormous amount I have learned since September, *and that you have never asked us to memorize a single thing!*"

A 12 x 18 portfolio, from one to two inches thick by June served, apart from three-dimensional projects and group activities such as stage painting, as major evidence of the content of the course. It contained original work—for even those students with no "talent" were encouraged (gently) to try out the process, at

and personality types—intellectual, emotional, concern for outer form or for inner meaning, etc. (3) the prevalent subject-matter in terms of the cultural milieu. Such a combination as Botticelli, Dürer, El Greco, Degas, Daumier, Picasso and Kollwitz, for instance, provides for a wealth of fruitful "discoveries."

least, of visual expression with the assurance that the grade would have nothing to do with its esthetic excellence, everything to do with their grasp of the essence of the assignment, honest effort, and probable improvement with the passage of time. It contained also examples of the various arts and all manner of mounted or otherwise organized material (from paintings to a folder of current advertising) but always annotated to show the precise point it illustrated and/or its relationship to the overall view. (I wonder if it could not be said that the most important question one ever asks is "Why?") And of course there were book reports, research papers (which might have been touched off by an exhibit at the Art Museum or a noteworthy TV program), reports on "awareness", the inevitable quizzes and identification tests which always included pictures not seen before to be identified by sensitivity to clues, the "esthetic" evaluations of sculptures or paintings or coffee pots, suddenly unveiled, and the biographies to-be-always-accompanied by attempts to distill essences in relation to an artist's significant contribution to life-in-general. The formal organization of the portfolio and its final presentation, by contrast with its earlier appearance, provided a helpful gauge to progress, one the student, too, could see clearly. In fact, he sometimes proposed his own grade; and in later years always accompanied it by a written evaluation of no specified length, but of prescribed soul-searching content. These self-evaluations and grades were wonderfully honest and sometimes reported, unasked, the effects of the work on their home life, families, boy and girl friends and so on . . . When a High School Junior could attend a Harvard "Smoker" or a downtown coffee-house and hold her own in "profound" discussion of esthetics, or the cyclic concept of history or the fourth dimension, believe me no pain endured in course of homework was then too great!

The order of events for the year might have appeared less logical (i.e., in an obvious sense such as chronological) than *psycho*logical. But a less cursory overview would have revealed (I hope) an inner logic. For the broad objectives, as suggested above, were clear and specific; and although the means for attaining them were permitted to develop with spontaneity, they were checked frequently with the overall plan. One must avoid falling

into the trap of aimless wandering which results from an overdose of spontaneity. Too much of anything is—too much.

In fact, it may be that the philosophy of teaching I have tried to bring to life here could be summed up in the words BALANCE—the balancing of opposites—and SYNTHESIS. There is the balance and synthesis, for example, of activities physical, emotional, mental, and intuitional. There is the variety and balance of different approaches to the same theme for the sake of the contrasting psychological types that appear in an average classroom. And finally there is the synthesis of content, meaning, and method—the WHAT, the WHY and the HOW; and this is something—happily for progress—that is never "finished."

In any case, each one of us must make a synthesis suited to our own personal teaching "style"; it would be violating an esthetic principle for one teacher to try to take on the program of another "in toto"—like a readymade dress. I have reported here what seems to have worked for me. And somewhere in these pages, I sincerely believe, are seed-ideas of *potentialities*—ideas by which "education through art" may in days to come take on new and ever more vital meaning as education in the *greatest* art—of living.

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PROJECT: ABSTRACTS

VINCENT LANIER

The accumulation of all past research in art education in one source has for some years seemed to me to be a worthy project. Having tried unsuccessfully to obtain organizational support for such a project, I accepted the old adage: "If you want something done, do it yourself", and initiated the somewhat laborious compilation of research results as accomplished in doctoral dissertations.

The first step in this project entailed the collection of titles of doctoral dissertations in art education completed in universities in the United States and Canada. During the 1958-59 academic year, these titles were drawn from the following sources:

1. *Dissertation Abstracts* of the University of Michigan Microfilm Service. (1938-58)
2. "Research Studies in Education" in the *Phi Delta Kappan.*
3. Letters to librarians in universities having doctoral programs in art education.

Also during this year, the title file was exchanged with a similar listing prepared by Ralph Beelke, executive secretary of the NAEA and Mayo Bryce of the U.S. Office of Education, filling in gaps in both lists. A follow-up letter to each of the same universities was sent out in Spring 1960, and the responses brought the listing up to date as of the end of 1959.

The next step involved the collection of the dissertation abstracts themselves. While a majority of these are available in the publication Microfilm Abstracts, the amount of time necessary for transferring the materials from another source seemed prohibitive without financial support. Also such a compilation would be only partial since all universities offering doctoral degrees in art education are not members of the Microfilm Service, or have not been until recently. Therefore, the idea of an exchange service was discussed and initiated. Six universities are now cooperating in the project: Stanford University, Ohio State University, Pennsylvania

State University, New York University, Teachers College, Columbia University, and the University of Southern California. The men and women involved in this effort are June McFee, Jerome Hausman, Kenneth Beittel, George Ross, and Edwin Ziegfeld.

The project requires the assembling by each of the member schools of ditto masters of abstracts of all doctoral dissertations completed in that school in the art education area. These masters will then be sent to the University of Southern California which will act as a clearing house for the member institutions, duplicating each master and returning to each member school those abstract copies from the other institutions needed to complete the file. This exchange process is designed to provide for the member school approximately 60% of the dissertation abstracts known by title.

Further it is hoped that within the 1960-61 academic year, time, energy, or funds will be available to complete the compilation by the transfer and duplication of those dissertation abstracts done in nonmember colleges and universities from the volumes of the Microfilm Abstracts. If all goes as planned, by 1961 six universities will have abstracts of every doctoral dissertation in art education listed in standard sources of reference.

It is also anticipated that in the future all doctoral candidates in art education upon attainment of their degrees will prepare and transmit an abstract of the dissertation to the University of Southern California for inclusion in the abstract file. This should preferably be submitted in the form of a ditto master of standard size, and following a general format of:

1. Author
2. Title
3. School
4. Date
5. Description of the problem
6. Description of the procedure
7. The findings
8. Conclusions & recommendations

In this way the file could become self-perpetuating, needing only the duplication and mailing each semester or year of newly accumulated abstracts.

The limitations of this project are four in number:

1. There is every likelihood that several dissertations have been inadvertently omitted, despite the fact that every effort has been made to discover all dissertation titles.

2. The exclusion of research studies other than doctoral dissertations is not meant to imply that doctoral effort is the sole criterion of scientific or scholarly excellence. There are significant and unassailably careful investigations of consequence to art education outside of doctoral studies. For obvious reasons, no attempt has been made to collect such researches.

3. A compilation of abstracts would be of greater value if it were to include some measure of analysis and even evaluation. Some steps have been made in this direction and a more extensive analysis has already been planned, under the competent guidance of Martin Millstone of the Los Angeles City Schools.

4. Doctoral dissertations completed in academic areas related to art education are not included in these two files. Investigations in the visual arts done under auspices other than art education, studies in general education, psychology, and a host of other disciplines, literally too numerous to mention can be of significant consequence to our knowledge of art education. In fact, my original file included an almost equal number of dissertation titles in art history. However, I have not made use of those titles since it appeared extremely difficult to evaluate their possible importance for our field without an examination of the dissertation abstract in each case. It may well be that at some future time a beneficent agency will see fit to provide funds whereby this type of gargantuan project may be implemented. Certainly this abstract file as planned and presently growing should eventually include both art education studies other than those done on the doctoral level and researches in other subject areas the topics or results of which relate to our field.

Meanwhile, some preliminary statistics may be of interest to the reader. The total number of dissertation titles is 324. The number of schools represented is 46. Of the total number, 222 studies have been completed at the six universities involved in the project. Table I presents the number of completed doctoral dissertations in each university represented in the title file.

Needless to say, any addition to or correction of the title file would be greatly appreciated.

TABLE I

Number of Completed
Doctoral Dissertations
in Each University

UNIVERSITY	No. of Dissertations
Teachers College Columbia University	103
Pennsylvania State University	38
New York University	32
Ohio State University	32
Stanford University	11
Iowa State University	9
University of Southern California	6
University of California at Berkeley	5
University of Indiana	5
University of Michigan	5
University of Minnesota	5
University of Missouri	5
University of Wisconsin	5
Cornell University	4
Harvard University	4
Oregon State College	4
Boston University	3
Bradley University	3
University of Buffalo	3
University of Oregon	3
University of Texas	3
Yale University	3
University of Chicago	2
University of Colorado	2
Colorado State College	2
University of Denver	2
University of Florida	2
George Peabody College	2
University of Pittsburgh	2

UNIVERSITY	No. of Dissertations
University of Toronto (Canada)	2
University of California at L.A.	2
University of Alberta (Canada)	1
University of Arizona	1
University of Cincinnati	1
Emory University	1
University of Houston	1
University of Illinois	1
Loyola University (Chicago)	1
University of Nebraska	1
Northwestern University	1
University of Oklahoma	1
Princeton University	1
Syracuse University	1
University of Utah	1
Vanderbilt University	1
Yeshiva University	1

RESEARCH REVIEW

JOHN S. KEEL

On the basis of a nationwide survey of practices, Howard Conant and Arne Randall have contributed a textbook introduction to contemporary ideals and aspirations in the profession of teaching art. The writers present data, including excellent pictorial material, on community relations, placement activity, the designing of art rooms, general approaches to curriculum improvement and teaching method, professional organizations, etc. Conant and Randall are insistent that "art should retain its identity in education as a *quality* of human experience which rises above the commonplace and the mediocre. It follows that learning experience in art can be most effectively and creatively guided by the specially prepared art teacher." (*Art in Education*, Charles A. Bennett, Peoria, Ill., 1959.)

Carol R. N. White examines the concept that art is a special subject in the elementary schools and questions the idea that it should be taught or supervised by art specialists. It is argued that the "art consultant" position should be looked upon as transitional and that every teacher should be trained to be a teacher of art. This, it is contended, would be the best means of improving elementary art. She states: "Art education today faces limitations which are imposed by its history of defensive insecurity, zealous devotion, and self-defeating salesmanship. Special teachers are in a precarious position when they bring a special subject into the school because general teachers resist teaching it. The promotion of art as a special subject may involve alliances with interests ultimately inimical to art. Art specialist positions justified as a form of subsidy for economically disadvantaged artists are educationally indefensible. Art assistance for general teachers, even when presumably temporary, becomes permanently necessary in the opinion of those whose vested interests are at stake in its continuance. The training of special art teachers may decrease emphasis on art in the preparation of general elementary teachers. Separate teach-

ing of art permits rationalization of the neglect of art in the classroom. Increasing specialization of art education can keep it beyond the capacities of general teachers." ("A Critical Appraisal of the Concept of 'Special Teacher' and 'Specialist' in Elementary School Art Education," University of Illinois, 1960; *Dissertation Abstracts*, XX, 4605.)

In a study of the problems of seventeen "outstanding" college art departments, August L. Freundlich suggests that such factors as birth rate, increase of leisure time, and higher standards of living "point toward a still wider participation in, and a greater importance of art, and consequently training in art." Freundlich's questionnaire reveals that "almost universal expansion is contemplated" in the art departments studied. However: "Little thought has been given to any other impending changes. . . . Physical facilities . . . have reached or will shortly reach a critical point. Most current curricula are aimed at training the professional artist or other highly specialized art professional, yet few . . . students will spend their lives this way." This study concludes that more realistic planning is needed for the future. ("A Study of College Art Departments in a Time of Expansion," New York University, 1960: *Dissertation Abstracts*, XX, 4620.)

HISTORY OF ART EDUCATION—Historical studies have been an occasional direction of research in art education. The broad picture of the historical development of the field is more clear than are particular aspects of this development. The most impressive works are Nikolaus Pevsner's *Academies of Art* (Cambridge University Press, 1940), Frederick Logan's *Growth of Art in American Schools* (Harper, 1955), and Frances B. Belsche's unpublished dissertation, "A History of Art Education in the Public Schools of the United States" (Yale University, 1946).

An exciting footnote to the history of art education is provided by T. Lux Feininger in his article evoking the creative and festive atmosphere of the great German school of design, the Bauhaus. Although dominated in certain ways by the vision and genius of Walter Gropius, it was "an organization born out of the collaboration of many minds." Among the seven artists who gave shape to its curriculum and philosophy—Klee, Kandinsky, Moholy-

Nagy, Marcks, Schlemmer and Itten. ("Bauhaus: the Evolution of an Idea," *Criticism*, Summer 1960, II, pp. 260-277.)

THE NATURE AND VALUES OF ART—Because of its intrinsic relationship to the aims and purposes of art education, research in aesthetics and the philosophy of art remains a persistent area of concern. In the recent history of American art education Clive Bell, John Dewey, Herbert Read and Susanne Langer have exercised particular influences. A recent work which deserves careful attention and which promises to exert substantial effect on future thinking about the nature of artistic expression is E. H. Gombrich's *Art and Illusion* (Bollingen Series, XXXV, 5; Pantheon Books, New York, 1960). Gombrich, one of the world's leading art historians, draws not only from expert knowledge in his field but exhibits a sophisticated knowledge of research and speculation on perception to inquire into the principles of form and style in pictorial representation. Indeed, Gombrich re-establishes the problem of representation as a problem of aesthetics and suggests numerous implications for thinking about art teaching.

An issue of the journal of the American Academy of Arts and Sciences has been devoted to "The Visual Arts Today." Articles have been contributed by Gyorgy Kepes, Margaret Mead, Siegfried Giedion, Le Corbusier, Paul Rand, and other significant artist-designers and researchers in the arts. (*Daedalus*, Winter 1960; Available for $2.50 from Wesleyan University Press, Middletown, Conn.)

ART AND SOCIETY—Some of the most incisive thinking about art and art education in relation to its social context has been provided by Arnold Hauser in *The Social History of Art*. Hauser discusses aspects of his method in *The Philosophy of Art History* (Alfred Knopf, New York, 1959), emphasizing the concept of "ideology" in the sociological approach to art. He points to the dominance of new social groups, the emergence of new "publics," as a basis of radical changes in style in the arts.

Thomas Munro, as part of a continuous study of comparative aesthetics, summarizes and criticizes "the Marxist theory of art history," distinguishing it from the "sociological approach, in general." (*Journal of Aesthetics and Art Criticism*, June 1960,

XVIII, 430-445.) Edward B. Henning reviews the "sociological approach" of Taine, which sees works of art determined by the interaction of *"la race, le milieu, et le moment."* ("Patronage and Style in the Arts," *Journal of Aesthetics and Art Criticism*, June 1960, XVIII, 464-471.)

PSYCHOLOGY OF ART—Although rarely achieving the full rigour demanded by contemporary psychological research, much important work of art educators has been carried on in "the psychology of art "—the study of aesthetic perception, artistic creation, the genesis of art, the personality of the artist, and the social psychology of style. Not only has there been a need to review relevant experimental and clinical findings, but it has been important to directly engage in experimentation on crucial problems. Norman Meier, Thomas Munro and Viktor Lowenfeld have provided leadership in this area.

A useful publication for the art educator to keep up with some of the vast and varied developments in the field of psychology is the relatively new monthly journal of reviews *Contemporary Psychology*, developed for the American Psychological Association. In the May 1960 issue (V, 170), Frank Barron critically examines *Neurotic Distortion of the Creative Process* (University of Kansas Press, 1958) by Lawrence Kubie. Among Kubie's ideas is the point, "that current educational methods, by undue ratiocination, habit, and repression of spontaneity, together with an almost complete disregard for the unconscious and its stultifying effects, tend to stifle the individual's potential creativity; . . . the rich fields of preconscious impressions and ideas must lie fallow because of a misdirected educational strategy." Kubie focuses on the "preconscious" as a main source of creative ideas, holding that the "unconscious" levels are mainly inhibitory.

Margaret E. Kirkpatrick reports almost a year of personal experience in painting, involving the production of 27 oils. Submitting as data (1) the paintings, (2) written comments in a journal, and (3) photographs of work in progress, she concludes: "The process of creating a painting was found to be a complex of interrelated acts consciously or intuitively experienced. Shapes, as patterns of forces realized kinaesthetically, contributed to the

totality of the design, never exclusively dominating it. . . . Little predictability as to outcome was apparent early in the process. No arbitrary sequence of acts was revealed. . . . When problems were met and studied, insight into solutions resulted; however, time spent was variable. Thematic associations evolved as work progressed. Environment contributed to ease and clarity of expression. . . . Freedom from imposed pressures and anxieties was found to assist the creative process; mental fatigue and emotional strain noticeably blocked progress. . . . Teaching procedures should be given close scrutiny not only to safeguard a non-competitive, unhurried . . . experience, but also, through motivation and guidance, to provide richer nourishment for student powers." ("A Report on Research in the Development of a Series of Oil Paintings, New York University, 1959; *Dissertation Abstracts*, XX, 3684.)

In a study of art in relation to the science of perception, Erwin M. Breithaupt, Jr., argues that "basic components of perception" are instrumental to all visual art activity, both in creating art and in appreciation. Therefore, he proposes, there should be a shift in the method of teaching art appreciation. The new method should consider art "as basically an artificial form which emerges as a transactional result of an organismic response to a given set of stimuli." He points out the usefulness of the Visual Demonstrations developed by Ames as a means of clarifying visual phenomena involved in aesthetic perception. ("A Study and Specification of Art Appreciation in Terms of the Structure of Visual Perception," Ohio State University, 1953; *Dissertation Abstracts*, XX, 2744.)

In "a study to establish a scoring key for male elementary and secondary art teachers to be used with the Strong Vocational Interests Blank," Victor P. Croftchik reveals that "art teachers' interests were definitely different from the interests of men-in-general . . ." It is suggested that the inventory developed in the study could be used in vocational guidance. (Michigan State University, 1959; *Dissertation Abstracts*, XX, 4593.)

In an experimental study attempting to determine learning outcomes of a laboratory course "Creative Expression in the Humanities," M. Frances Dougherty concludes that participation in a program of creative expression such as used in the course "will

be ineffective in bringing about significant change in the discrepancy between self-concept and the concept of ideal self." However, he reports "significant changes toward adjustment of personality characteristics of achievement, autonomy, and abasement, but no change will occur in other personality characteristics based on manifest needs." ("A Study of the Influence of the Creative Arts Laboratory on Selected Personality Characteristics of College Students," N.Y.U., 1959; *Dissertation Abstracts*. XX, 3183.)

Reviewing research on "the relation of intelligence to art activity," Robert Burkhart points out the high correlations found from kindergarten through third grade, but indicates correlations beyond third grade were not significant. (*Journal of Aesthetics and Art Criticism*, December 1958, XVII, 230-241.) In "a critical analysis of psychological treatment of children's drawings and paintings," Stewart Johnson and Eugene Gloye review the methods and findings of Margaret Naumberg, Lowenfeld, Schaeffer-Simmern, and others. They conclude that the conclusions drawn are "highly questionable," and that "in most cases the data presented can be interpreted with equal validity in a number of different ways." (*Journal of Aesthetics and Art Criticism*, XVII, 242-250.)

Utilizing the Thematic Appreception Test and the Rorschach test to compare groups of artists with groups of non-artists, Bernice T. Eiduson concludes that "it is primarily in their ways of thinking and perceiving that artists show the most marked difference from non-artists." Artists tend "to accept reality but . . . perceive it in a way which is different from that of the non-artist. They are extremely responsive to sense data, and seek out the subtle and delicate in impressions. Their thinking is marked by a great deal of elaborated fantasy; they are able to tolerate ambiguity in perception and also have the ability to loosen or relax their thinking without accompanying personality disorganization." ("Artist and Non-Artist: a Comparative Study," *Journal of Personality*, March, 1958, XXVI, pp. 13-28.)

In an experimental study comparing nine standardized tests for predictability of success in the field of art education, Josef G. Gutekunst judges the following tests to contribute prediction of art achievement to the level of one per cent: the ACE Quantitative Test, the Cooperative English Test, the Effectiveness of Expression

Test, the Kohs Block Design Test, the Knauber Art Ability Test, and the Survey of Object Visualization Test. The Survey of Space Relations Test was found significant at the five per cent level. Gutekunst concludes also that "the survey of Object Visualization yielded the highest predictive value (87.3) for the discriminant function when four predictor variables were used." ("The Prediction of Art Achievement of Art Education Students by Means of Standardized Tests," Temple U., 1959; *Dissertation Abstracts*, XX, 3202.)

Phil H. Rueschhoff, in a statistical investigation involving 240 cases in the appreciation and evaluation of works, reveals that influences of monetary value in appreciation of works of art approaches significance at the five per cent level. ("The Influence of Monetary Value Attachments to Works of Art on the Responses of Rural and Urban Children and Adults," Pennsylvania State University, 1959; *Dissertation Abstracts*, XX, 1731.)

Max Bolotin compares the use of the Draw-a-man test on children with varied educational and cultural backgrounds, using one group of Puerto Rican and one group of native American subjects. "It was observed . . . that the drawings of natives as a group conform to recognized social stereotypes in our culture," while those of Puerto Rican groups indicate "quite different inner processes within the members of the two groups." ("The Use of Human Figure Drawings in Evaluating Children and Adolescents of Special Educational Background: an examination of the effectiveness of current diagnostic criteria with the draw-a-person test as applied to Puerto Rican children and adolescents," New York University, 1959; *Dissertation Abstracts*, XX, p. 4030.)

ART IN THE CURRICULUM—The aims and curricular position of art in the total educational scheme persist as points of focus in current research studies. Writers continue in the activity of raising issues, of suggesting changes in line with prevailing curricular reforms, of finding a basis for the wider use of art in the general program of education.

Among curricular writings is an analysis of the writings of Sir Herbert Read for their educational implications. John Keel points out Read's contention that art, and hence all education,

should begin as a play activity and must gradually be oriented toward the highly disciplined activity found among the leading creative personalities of our time. In such education, "teaching is a matter of evoking expressive activity in the student and assisting him in finding its organic form, of providing proper tools, materials and technical guidance, and gentle assistance according to the . . . dynamics of the creative process in the particular individual." Although education may draw freely from the accumulated knowledge and traditions, the pupil must learn to proceed on the basis of his own will-to-form, allowing the full range of his faculties to be brought into play. ("The Writings of Sir Herbert Read and Their Curriculuar Implications—the Aesthetic Education of Man," University of Wisconsin, 1960; *Dissertation Abstracts*, XX, 4052.)

The issue of "integration" and "correlation" is raised in a philosophical study by Sue W. Cromartie. It is argued that (1) because art ability is "natural and universal," and (2) because the interrelationship of art experience with other experiences is valuable, therefore students in pre-service education should participate in interrelated experiences. ("Children's Art Experiences Interrelated with Other School Experiences—a philosophical study with implications for the program of elementary education, the University of Georgia," University of Georgia, 1959; *Dissertation Abstracts*, XX, 2692.)

Employing a questionnaire and check list to investigate interests and activities of potential art value to boys and girls from 12 to 18 years of age, Helen L. B. Northcutt holds that the high school program should start with "real life experiences," suggesting such areas as consumer buying, hobbies, school and club interests, and opportunities for aesthetic enjoyment as centers of learning. It is also argued that "vocational guidance . . . should include acquaintance with a variety of vocations in art and knowledge of job opportunities as well as understandings of self-abilities and limitations." ("Art Experiences and Interests of Selected Groups of Adolescents," University of Missouri, 1959; *Dissertation Abstracts*, XX, 4350.)

Lucius Lee Shackson, in a study of college catalogs for specific course requirements, points out that fine arts, mathematics, philosophy and music are slowly gaining importance among require-

ments for the Bachelor of Arts degree. At present, however, these kinds of courses hold positions markedly less important than English, foreign languages, science, social studies and physical education. ("A Study of Specific Course Requirements for the Bachelor of Arts Degree in Liberal Arts Colleges," Ohio State University, 1959; *Dissertation Abstracts*, XX, 4004.)

Reviewing the problems of curriculum development for small denominational colleges in line with modern conceptions of general education, Dan F. Johnson stresses "need for . . . opportunities for the general student to find art experiences which will make his understanding of the visual arts more thorough and accurate." Johnson indicates the need for the curriculum to allow students to select from different fields of specialization. ("Proposed Curriculum Revisions in a General Education Context for the Art Department of Ottawa University," University of Kansas, 1959; *Dissertation Abstracts*, XX, 4014.)

In the course of considering the planning of an art education program for elementary teachers, Robert L. Bertolli has summarized a comprehensive list of objectives for art in the schools: "(1) to introduce art as a constant factor in daily living for the individual and for the community; (2) to develop personal aesthetic enjoyment and judgment; (3) to foster the individual and social values inherent in creative thought; (4) to cultivate the enrichment of the personality through art experience; (5) to exploit art as a dimension in the comprehension and use of knowledge; (6) to provide a needed means of non-verbal communication; (7) to increase competence in the handling of materials. Using data from classroom teachers in relation to current ideas in art education, Bertolli holds that the training of the prospective teacher must include three phases of work in art education: (1) a studio phase, involving direct work with the materials and processes of art; (2) a cultural phase, dealing with art as the qualitative record of civilization; (3) a professional phase, consisting of a detailed and specific methodology of art in the schools. ("Development of a Philosophy of Art Education for the Massachusetts State Teachers Colleges—a colligation of recent writings, research studies and philosophy of contemporary art education," New York University, 1959; *Dissertation Abstracts*, XX, 4038.)

METHODS OF ART TEACHING—In a new textbook on elementary art education, Manuel Barkan presents the results of intensive and extensive observation of the teaching methods of selected, "superior" classroom teachers in the elementary schools. Tape recorded conversations encompassing the motivation and guidance of creative activities of children in the various grades are presented along with candid photographs taken during the observed sessions. This data is analyzed in alternate chapters for generalizations about developmental aspects of teaching, appropriate stimulation and materials, classroom management, and a philosphy of teaching art to children. This study tends to favor a rather verbal kind of art teaching, but in so doing offers a rich sample of language—exemplary questions and comments—which can be adapted to teaching art in the schools. (*From Art to Creativity*, Allyn and Bacon, 1960.)

Carl Reed and Joseph Orze have compiled a formidable encyclopedia of ideas on the use of scrap materials in art instruction. The authors tend to stress that such materials be used creatively, with appropriate attention to design principles and aesthetic quality. The collection includes old and new ideas of collage and construction, mosaics, printmaking, sculpture, etc. (*Art from Scrap*, Davis Publishing Co., 1960. A San Francisco publisher presents another useful reference on basic art techniques for classroom use. (Pauline W. Kagan, *From Adventure to Experience Through Art*, Howard Chandler Publishing Co., 1959.)

The development and demonstration of an instrument for appraising art teaching performance has been reported by Charles M. Dorn. Dorn concludes that his study "supports the contention that criteria for appraising teacher performance in art can be developed and that these criteria can employ the support of leading art educators." ("The development and use of instruments for appraising elementary school art teaching performance," University of Texas, 1960; *Dissertation Abstracts*, XX, 4630.)

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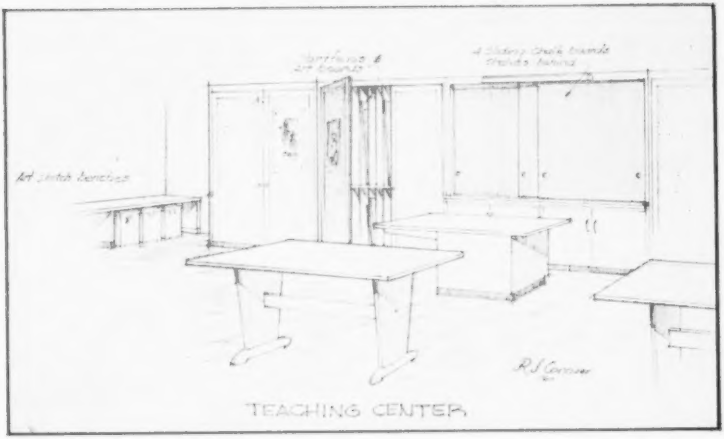

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